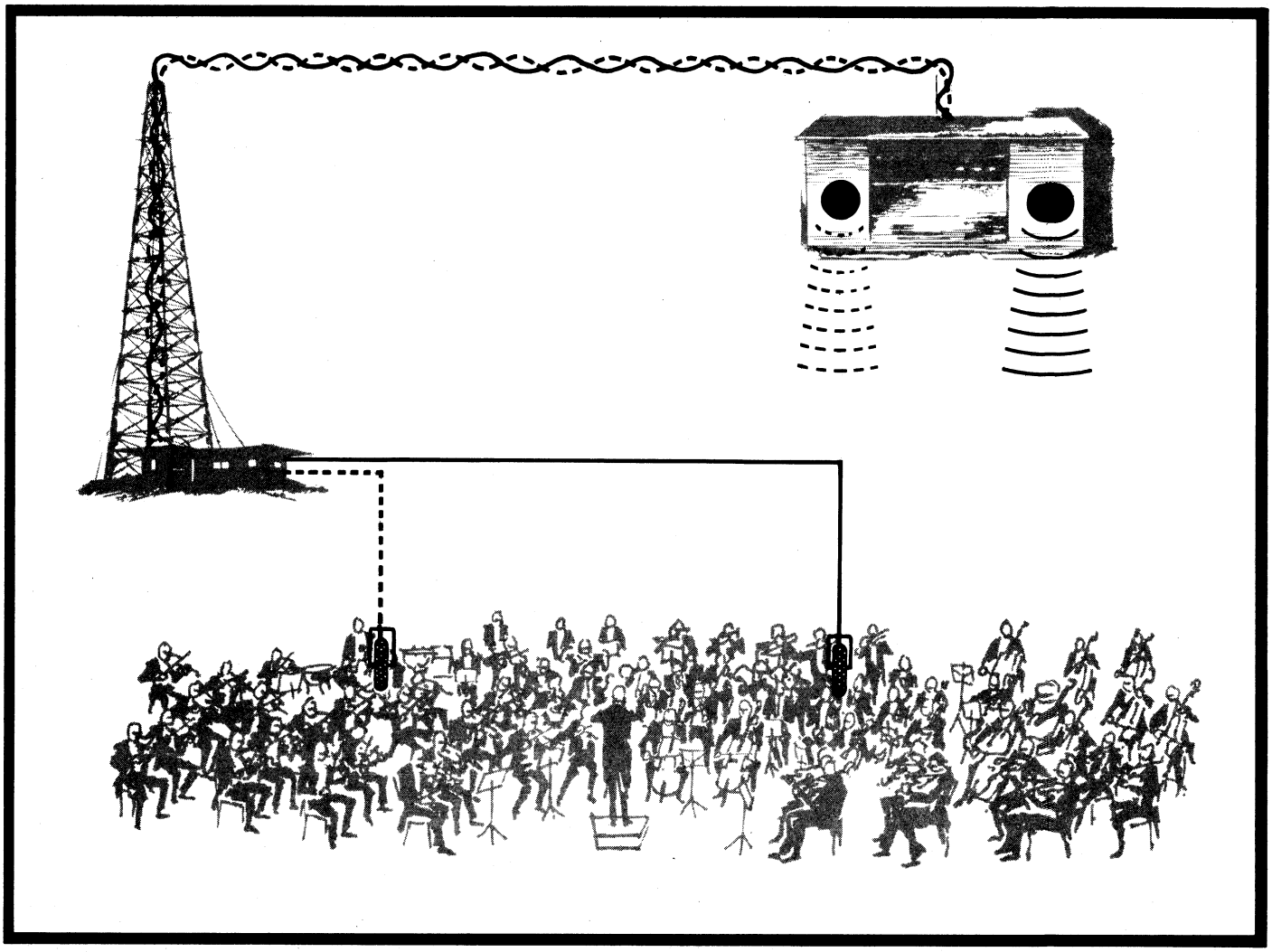
ZENITH®



# SCHEMATICS FOR 1963 HIGH FIDELITY AND STEREO FM MODELS

SUPPLEMENT TO HF9

**ZENITH RADIO CORPORATION**

6001 DICKENS AVENUE CHICAGO 39, ILLINOIS

**HF10**

PRICE $.75

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# FEATURES OF HIGH FIDELITY & STEREO FM MODELS

| MODEL NO. | CABINET | | | | CHASSIS | | | SPEAKER | |
|---|---|---|---|---|---|---|---|---|---|
| | STYLE | MATERIAL | FINISH | COLOR | MODEL | TYPE | EIA POWER OUTPUT | SIZE (IN.) | MAGNET (WT. OZ.) |
| FT11L | | DROP-IN-TUNER | | | 7F20L | AM-FM Tuner | – – – | – – – | – – – |
| MHT14LZ | | DROP-IN-TUNER | | | 9H21LZ2 | AM-FM Tuner | – – – | – – – | – – – |
| MHT15LZ | | DROP-IN-TUNER | | | 9H20LZ4 | AM-FM Tuner | – – – | – – – | – – – |
| KT10L | | DROP-IN-TUNER | | | 7K21 | AM-FM Tuner | – – – | – – – | – – – |
| ZP2B | Table (w/handle) (lift lid) | Plastic | Textured Plastic | Blue & White | 1L20 | 1 Tube Phono Only | – – – | 4 | .68 |
| ZP2V | Table (w/handle) (lift lid) | Plastic | Textured Plastic | Red & White | 1L20 | 1 Tube Phono Only | – – – | 4 | .68 |
| KPS45L | Table (w/handle) (lift lid) | Wood | Plastic Coated Paper | Antique Gold & White | Waters-Conley | 2 Tube Phono Only | – – – | 2-5¼ | 1.47 |
| KPS50L | Table (w/handle) (lift lid) | Wood | Plastic Coated Cloth | Gold & White | Waters-Conley | 3 Tube Phono Only | – – – | 2-6 | 1.47 |
| KPS70 | Table (w/handle) (lift lid) | Wood | Plastic Coated Cloth | Black | Waters-Conley | 3 Tube Phono Only | – – – | 2-6½<br>2-4 | 2.15<br>.68 |
| KPS80L | Table (w/handle) (lift lid) | Wood | Plastic Coated Cloth | Metallic Tan & White | Waters-Conley | 4 Tube Phono Only | – – – | 2-3½<br>2-5¼<br>1-8 | .46<br>.97<br>2.15 |
| KPS80C | Table (w/handle) (lift lid) | Wood | Plastic Coated Cloth | Silver Black & White | Waters-Conley | 4 Tube Phono Only | – – – | 2-3½<br>2-5¼<br>1-8 | .46<br>.97<br>2.15 |
| SP400WT | Console (lift lids) | Wood | Wood | Walnut | 3K01Z1 | Phono Only | 4W. | 2-3½<br>2-6 x 9 | .85<br>3.16 |
| MP400W | IDENTICAL TO "SP400WT" EXCEPT INCLUDES MHT14LZ DROP-IN TUNER & DIFFERENT NAMEPLATE WHICH | | | | | | | | |
| MP500W | Consolette (Wall Hung Type) (lift lid) | Wood | Wood | Walnut | 4K22 (9H20LZ3) | Phono-AM-FM | 8.5W. | 2-3½<br>2-8½ x 12½ | .46<br>3.16 |
| MP500Y | Consolette (Wall Hung Type) (lift lid) | Wood | Wood | Ebony | 4K22 (9H20CZ3) | Phono-AM-FM | 8.5W. | 2-3½<br>2-8½ x 12½ | .46<br>3.16 |
| MP505W | Consolette (lift lid) | Wood | Wood | Walnut | 4K22 (9H20LZ3) | Phono-AM-FM | 8.5W. | 2-3½<br>2-8½ x 12½ | .46<br>3.16 |
| ST1950WT1 | Console (lift lid) | Wood | Wood | Walnut | 3K01Z | Phono Only | 4W. | 2-3½<br>2-6 x 9 | .85<br>3.16 |
| ST1950RT1 | Console (lift lid) | Wood | Wood | Mahogany | 3K01Z | Phono Only | 4W. | 2-3½<br>2-6 x 9 | .85<br>3.16 |
| ST1950LT1 | Console (lift lid) | Wood | Wood | Blond Walnut | 3K01Z | Phono Only | 4W. | 2-3½<br>2-6 x 9 | .85<br>3.16 |
| MT1950W1 | IDENTICAL TO ST1950WT1 EXCEPT INCLUDES MHT14LZ DROP-IN TUNER & DIFFERENT NAMEPLATE WHICH | | | | | | | | |
| MT1950R1 | IDENTICAL TO ST1950RT1 EXCEPT INCLUDES MHT14LZ DROP-IN TUNER & DIFFERENT NAMEPLATE WHICH | | | | | | | | |
| MT1950L1 | IDENTICAL TO ST1950LT1 EXCEPT INCLUDES MHT14LZ DROP-IN TUNER & DIFFERENT NAMEPLATE WHICH | | | | | | | | |
| ST1954MT | Console (lift lid) | Wood | Wood | Maple | 3K01Z | Phono Only | 4W | 2-3½<br>2-6 x 9 | 85<br>3.16 |
| MT1954M | IDENTICAL TO ST1954MT EXCEPT INCLUDES MHT14LZ DROP-IN TUNER & DIFFERENT NAMEPLATE WHICH | | | | | | | | |
| ST1958HT | Console (lift lid) | Wood | Wood | Cherry | 3K01Z | Phono Only | 4W. | 2-3½<br>2-6 x 9 | .85<br>3.16 |
| MT1958H | IDENTICAL TO ST1958HT EXCEPT INCLUDES MHT14LZ DROP-IN TUNER & DIFFERENT NAMEPLATE WHICH | | | | | | | | |

# FEATURES OF HIGH FIDELITY & STEREO FM MODELS

| RECORD CHANGER (SEE NOTES) | | | | CONTROL PANEL | INDICATOR LIGHT | TYPE OF IDENTIFICATION AND SPECIAL FEATURES | REVERBERATOR | RADIAL SOUND SPEAKER |
|---|---|---|---|---|---|---|---|---|
| TYPE | MOUNTING | CARTRIDGE | STYLUS | | | | | |
| – – – | – – – | – – – | – – – | Die-Cast Escutcheon | No | ZENITH Crest | – – – | – – – |
| – – – | – – – | – – – | – – – | Die-Cast Escutcheon | No | ZENITH Crest | – – – | – – – |
| – – – | – – – | – – – | – – – | Die-Cast Escutcheon | No | ZENITH Crest | – – – | – – – |
| – – – | – – – | – – – | – – – | Die-Cast Escutcheon | No | ZENITH Crest | – – – | – – – |
| Manual Player | Shelf | 142-95 | Sapphire Sapphire | None | No | ZENITH Crest | – – – | None |
| Manual Player | Shelf | 142-95 | Sapphire Sapphire | None | No | ZENITH Crest | – – – | None |
| 169-184 | Shelf | 142-113 | Sapphire Sapphire | Hot Stamped on Cabinet | No | ZENITH Stereophonic Crest | None | None |
| 169-185 | Shelf | 142-103 | Sapphire Sapphire | Mylar Coated Paper | No | ZENITH Stereophonic Crest | None | None |
| 169-199 | Shelf | 142-126 | Sapphire Sapphire | Metal Plate | No | ZENITH Stereophonic Crest | None | None |
| 169-186 | Shelf | 142-126 | Sapphire Sapphire | Metal Plate | No | ZENITH Stereophonic Crest | None | None |
| 169-187 | Shelf | 142-126 | Sapphire Sapphire | Metal Plate | No | ZENITH Stereophonic Crest | None | None |
| 169-190 | Hinged Panel | 142-126 | Sapphire Sapphire | Metal Plate | No | ZENITH Stereophonic High Fidelity - Crest | None | None |
| INCLUDES (IN TYPE OF IDENTIFICATION) STEREO FM RADIO | | | | | | | | |
| 169-182 | Hinged Panel | 142-127 | Diamond Sapphire | Die-Cast Escutcheon | No | ZENITH Stereophonic High Fidelity - Crest Stereo FM Radio | None | None Built-in |
| 169-182 | Hinged Panel | 142-127 | Diamond Sapphire | Die-Cast Escutcheon | No | ZENITH Stereophonic High Fidelity - Crest Stereo FM Radio | None | None Built-in |
| 169-182 | Hinged Panel | 142-127 | Diamond Sapphire | Die-Cast Escutcheon | No | ZENITH Stereophonic High Fidelity - Crest Stereo FM Radio | None | None Built-in |
| 169-171 | Shelf | 142-127 | Diamond Sapphire | Metal Plate | No | ZENITH Stereophonic High Fidelity - Crest | None | None |
| 169-171 | Shelf | 142-127 | Diamond Sapphire | Metal Plate | No | ZENITH Stereophonic High Fidelity - Crest | None | None |
| 169-171 | Shelf | 142-127 | Diamond Sapphire | Metal Plate | No | ZENITH Stereophonic High Fidelity - Crest | None | None |
| INCLUDES (IN TYPE OF IDENTIFICATION) STEREO FM RADIO | | | | | | | | |
| INCLUDES (IN TYPE OF IDENTIFICATION) STEREO FM RADIO | | | | | | | | |
| INCLUDES (IN TYPE OF IDENTIFICATION) STEREO FM RADIO | | | | | | | | |
| 169-171 | Shelf | 142-127 | Diamond Sapphire | Metal Plate | No | ZENITH Stereophonic High Fidelity - Crest | None | None |
| INCLUDES (IN TYPE OF IDENTIFICATION) STEREO FM RADIO | | | | | | | | |
| 169-171 | Shelf | 142-127 | Diamond Sapphire | Metal Plate | No | ZENITH Stereophonic High Fidelity - Crest | None | None |
| INCLUDES (IN TYPE OF IDENTIFICATION) STEREO FM RADIO | | | | | | | | |

# FEATURES OF HIGH FIDELITY & STEREO FM MODELS

| MODEL NO. | CABINET | | | | CHASSIS | | | SPEAKER | |
|---|---|---|---|---|---|---|---|---|---|
| | STYLE | MATERIAL | FINISH | COLOR | MODEL | TYPE | EIA POWER OUTPUT | SIZE (IN.) | MAGNET (WT. OZ.) |
| ST1970WT | Console (lift lid) | Wood | Wood | Walnut | 4K21 | Phono Only | 8.5W. | 2-3½<br>2-4<br>2-10 | .46<br>.68<br>3.16 |
| MT1970W | IDENTICAL TO ST1970WT EXCEPT INCLUDES MHT15LZ DROP-IN TUNER & DIFFERENT NAMEPLATE WHICH | | | | | | | | |
| SK2450WT | Console (sliding panels) | Wood | Wood | Walnut | 3K01Z | Phono Only | 4W. | 2-3½<br>2-6 x 9 | .85<br>3.16 |
| SK2450RT | Console (sliding panels) | Wood | Wood | Mahogany | 3K01Z | Phono Only | 4W. | 2-3½<br>2-6 x 9 | .85<br>3.16 |
| SK2450HT | Console (sliding panels) | Wood | Wood | Cherry | 3K01Z | Phono Only | 4W.. | 2-3½<br>2-6 x 9 | .85<br>3.16 |
| MK2450W | IDENTICAL TO SK2450WT EXCEPT INCLUDES MHT14LZ DROP-IN TUNER & DIFFERENT NAMEPLATE WHICH | | | | | | | | |
| MK2450R | IDENTICAL TO SK2450RT EXCEPT INCLUDES MHT14LZ DROP-IN TUNER & DIFFERENT NAMEPLATE WHICH | | | | | | | | |
| MK2450H | IDENTICAL TO SK2450HT EXCEPT INCLUDES MHT14LZ DROP-IN TUNER & DIFFERENT NAMEPLATE WHICH | | | | | | | | |
| SK2500WT | Console (sliding panels) | Wood | Wood | Walnut | 3K01Z | Phono Only | 4W. | 2-3½<br>2-6 x 9 | .85<br>3.16 |
| SK2500RT | Console (sliding panels) | Wood | Wood | Mahogany | 3K01Z | Phono Only | 4W. | 2-3½<br>2-6 x 9 | .85<br>3.16 |
| SK2500MT | Console (sliding panels) | Wood | Wood | Maple | 3K01Z | Phono Only | 4W. | 2-3½<br>2-6 x 9 | .85<br>3.16 |
| MK2600W | IDENTICAL TO SK2500WT EXCEPT INCLUDES MHT14LZ DROP-IN TUNER & DIFFERENT NAMEPLATE WHICH | | | | | | | | |
| MK2600R | IDENTICAL TO SK2500RT EXCEPT INCLUDES MHT14LZ DROP-IN TUNER & DIFFERENT NAMEPLATE WHICH | | | | | | | | |
| MK2600M | IDENTICAL TO SK2500MT EXCEPT INCLUDES MHT14LZ DROP-IN TUNER & DIFFERENT NAMEPLATE WHICH | | | | | | | | |
| RKA2600W | IDENTICAL TO SK2500WT EXCEPT INCLUDES KT10L DROP-IN TUNER | | | | | | | | |
| RKA2600R | IDENTICAL TO SK2500RT EXCEPT INCLUDES KT10L DROP-IN TUNER | | | | | | | | |
| RKA2600M | IDENTICAL TO SK2500MT EXCEPT INCLUDES KT10L DROP-IN TUNER | | | | | | | | |
| SK2501WT2 | Console (lift lid) | Wood | Wood | Walnut | 3K01Z | Phono Only | 4W. | 2-3½<br>2-6 x 9 | .85<br>3.16 |
| SK2501LT2 | Console (lift lid) | Wood | Wood | Blond Walnut | 3K01Z | Phono Only | 4W. | 2-3½<br>2-6 x 9 | .85<br>3.16 |
| MK2601W2 | IDENTICAL TO SK2501WT EXCEPT INCLUDES MHT14LZ DROP-IN TUNER & DIFFERENT NAMEPLATE WHICH | | | | | | | | |
| MK2601L2 | IDENTICAL TO SK2501LT EXCEPT INCLUDES MHT14LZ DROP-IN TUNER & DIFFERENT NAMEPLATE WHICH | | | | | | | | |
| SK2502RT | Console (lift lid) | Wood | Wood | Mahogany | 4K21 | Phono Only | 8.5W. | 2-3½<br>2-4<br>2-10 | .46<br>.68<br>3.16 |
| SK2502MT | Console (lift lid) | Wood | Wood | Maple | 4K21 | Phono Only | 8.5W. | 2-3½<br>2-4<br>2-10 | .46<br>.68<br>3.16 |
| MK2602R | IDENTICAL TO SK2502RT EXCEPT INCLUDES MHT15LZ DROP-IN TUNER & DIFFERENT NAMEPLATE WHICH | | | | | | | | |
| MK2602M | IDENTICAL TO SK2502MT EXCEPT INCLUDES MHT15LZ DROP-IN TUNER & DIFFERENT NAMEPLATE WHICH | | | | | | | | |
| SK2503WT | Console (lift lid) | Wood | Wood | Walnut | 4K21 | Phono Only | 8.5W. | 2-3½<br>2-4<br>2-10 | .46<br>.68<br>3.16 |
| SK2503RT | Console (lift lid) | Wood | Wood | Mahogany | 4K21 | Phono Only | 8.5W. | 2-3½<br>2-4<br>2-10 | .46<br>.68<br>3.16 |
| MK2603W | IDENTICAL TO SK2503WT EXCEPT INCLUDES MHT15LZ DROP-IN TUNER & DIFFERENT NAMEPLATE WHICH | | | | | | | | |
| MK2603R | IDENTICAL TO SK2503RT EXCEPT INCLUDES MHT15LZ DROP-IN TUNER & DIFFERENT NAMEPLATE WHICH | | | | | | | | |

# FEATURES OF HIGH FIDELITY & STEREO FM MODELS

| RECORD CHANGER (SEE NOTES) | | | | CONTROL PANEL | INDICATOR LIGHT | TYPE OF IDENTIFICATION AND SPECIAL FEATURES | REVERBERATOR | RADIAL SOUND SPEAKER |
|---|---|---|---|---|---|---|---|---|
| TYPE | MOUNTING | CARTRIDGE | STYLUS | | | | | |
| 169-172 | Shelf | 142-127 | Diamond Sapphire | Die-Cast Escutcheon | No | ZENITH Stereophonic High Fidelity - Crest Bass Boost | None | KR102 |
| INCLUDES (IN TYPE OF IDENTIFICATION) STEREO FM RADIO | | | | | | | | |
| 169-179 | Shelf | 142-133 | Sapphire Sapphire | Metal Plate | No | ZENITH Stereophonic High Fidelity - Crest | None | None |
| 169-179 | Shelf | 142-133 | Sapphire Sapphire | Metal Plate | No | ZENITH Stereophonic High Fidelity - Crest | None | None |
| 169-179 | Shelf | 142-133 | Sapphire Sapphire | Metal Plate | No | ZENITH Stereophonic High Fidelity - Crest | None | None |
| INCLUDES (IN TYPE OF IDENTIFICATION) STEREO FM RADIO | | | | | | | | |
| INCLUDES (IN TYPE OF IDENTIFICATION) STEREO FM RADIO | | | | | | | | |
| INCLUDES (IN TYPE OF IDENTIFICATION) STEREO FM RADIO | | | | | | | | |
| 169-189 | Shelf | 142-126 | Sapphire Sapphire | Metal Plate | No | ZENITH Stereophonic High Fidelity - Crest | None | None |
| 169-189 | Shelf | 142-126 | Sapphire Sapphire | Metal Plate | No | ZENITH Stereophonic High Fidelity - Crest | None | None |
| 169-189 | Shelf | 142-126 | Sapphire Sapphire | Metal Plate | No | ZENITH Stereophonic High Fidelity - Crest | None | None |
| INCLUDES (IN TYPE OF IDENTIFICATION) STEREO FM RADIO | | | | | | | | |
| INCLUDES (IN TYPE OF IDENTIFICATION) STEREO FM RADIO | | | | | | | | |
| INCLUDES (IN TYPE OF IDENTIFICATION) STEREO FM RADIO | | | | | | | | |
| 169-171 | Shelf | 142-127 | Diamond Sapphire | Metal Plate | No | ZENITH Stereophonic High Fidelity - Crest | None | None |
| 169-171 | Shelf | 142-127 | Diamond Sapphire | Metal Plate | No | ZENITH Stereophonic High Fidelity - Crest | None | None |
| INCLUDES (IN TYPE OF IDENTIFICATION) STEREO FM RADIO | | | | | | | | |
| INCLUDES (IN TYPE OF IDENTIFICATION) STEREO FM RADIO | | | | | | | | |
| 169-172 | Shelf | 142-127 | Diamond Sapphire | Die-Cast Escutcheon | No | ZENITH Stereophonic High Fidelity - Crest Bass Boost | None | KR102 |
| 169-172 | Shelf | 142-127 | Diamond Sapphire | Die-Cast Escutcheon | No | ZENITH Stereophonic High Fidelity - Crest Bass Boost | None | KR102 |
| INCLUDES (IN TYPE OF IDENTIFICATION) STEREO FM RADIO | | | | | | | | |
| INCLUDES (IN TYPE OF IDENTIFICATION) STEREO FM RADIO | | | | | | | | |
| 169-172 | Shelf | 142-127 | Diamond Sapphire | Die-Cast Escutcheon | No | ZENITH Stereophonic High Fidelity - Crest Bass Boost | None | KR102 |
| 169-172 | Shelf | 142-127 | Diamond Sapphire | Die-Cast Escutcheon | No | ZENITH Stereophonic High Fidelity - Crest Bass Boost | None | KR102 |
| INCLUDES (IN TYPE OF IDENTIFICATION) STEREO FM RADIO | | | | | | | | |
| INCLUDES (IN TYPE OF IDENTIFICATION) STEREO FM RADIO | | | | | | | | |

# FEATURES OF HIGH FIDELITY & STEREO FM MODELS

| MODEL NO. | CABINET | | | | CHASSIS | | | SPEAKER | |
|---|---|---|---|---|---|---|---|---|---|
| | STYLE | MATERIAL | FINISH | COLOR | MODEL | TYPE | EIA POWER OUTPUT | SIZE (IN.) | MAGNET (WT. OZ.) |
| SK2506WT | Console (lift lid | Wood | Wood | Walnut | 5K29 | Phono Only | 10W. | 4-3½<br>2-5<br>2-12 | .46<br>1.47<br>6.8 |
| SK2506RT | Console (lift lid) | Wood | Wood | Mahogany | 5K29 | Phono Only | 10W. | 4-3½<br>2-5<br>2-12 | .46<br>1.47<br>6.8 |
| SK2506LT | Console (lift lid) | Wood | Wood | Blond Walnut | 5K29 | Phono Only | 10W. | 4-3½<br>2-5<br>2-12 | .46<br>1.47<br>6.8 |
| MK2606W | IDENTICAL TO SK2506WT EXCEPT INCLUDES MHT15LZ DROP-IN TUNER & DIFFERENT NAMEPLATE WHICH | | | | | | | | |
| MK2606R | IDENTICAL TO SK2506RT EXCEPT INCLUDES MHT15LZ DROP-IN TUNER & DIFFERENT NAMEPLATE WHICH | | | | | | | | |
| MK2606L | IDENTICAL TO SK2506LT EXCEPT INCLUDES MHT15LZ DROP-IN TUNER & DIFFERENT NAMEPLATE WHICH | | | | | | | | |
| MK2608W | Console (lift lid) | Wood | Wood | Walnut | 5K29<br>MHT15LZ<br>(9H20LZ4) | Phono-AM-FM | 10W. | 4-3½<br>2-5<br>2-12 | .46<br>1.47<br>6.8 |
| MK2636R | Console (lift lid) (casters | Wood | Wood | Mahogany | 12K26Z<br>3K32Z | Phono-AM-FM | 10W. | 4-3½<br>2-5<br>2-12 | .46<br>1.47<br>6.8 |
| MK2636M | Console (lift lid) (casters) | Wood | Wood | Maple | 12K26Z<br>3K32 | Phono-AM-FM | 10W. | 4-3½<br>2-5<br>2-12 | .46<br>1.47<br>6.8 |
| MK2636H | Console (lift lid) (casters) | Wood | Wood | Cherry | 12K26Z<br>3K32Z | Phono-AM-FM | 10W. | 4-3½<br>2-5<br>2-12 | .46<br>1.47<br>6.8 |
| MK2670W | Console (lift lid) (Doors) | Wood | Wood | Walnut | 12K25Z<br>7K31Z | Phono-AM-FM | 40W. | 4-3½<br>2-Horn<br>2-12 | .46<br>4.28<br>13.0 |
| MK2675H | Console (lift lid) (Doors) | Wood | Wood | Cherry | 12K25Z<br>7K31Z | Phono-AM-FM | 40W. | 4-3½<br>2-Horn<br>2-12 | .46<br>4.28<br>13.0 |
| MK2685H | Console (lift lid) (Doors) | Wood | Wood | Cherry | 12K25Z<br>7K31Z | Phono-AM-FM | 40W. | 4-3½<br>2-Horn<br>2-12 | .46<br>4.28<br>13.0 |
| MK2685X | Console (lift lid) (Doors) | Wood | Wood | Antique White | 12K25Z<br>7K31Z | Phono-AM-FM | 40W. | 4-3½<br>2-Horn<br>2-12 | .46<br>4.28<br>13.0 |
| RK2785W2 | Console (lift lid) | Wood | Grained | Walnut | 16K33<br>4K22<br>7F20L | TV - Phono<br>AM - FM | 8.5W. | 2-3½<br>2-10 | .46<br>3.16 |
| RK2785R2 | Console (lift lid) | Wood | Grained | Mahogany | 16K33<br>4K22<br>7F20L | TV - Phono<br>AM - FM | 8.5W. | 2-3½<br>2-10 | .46<br>3.16 |
| RK2785M2 | Console (lift lid) | Wood | Grained | Maple | 16K33<br>4K22<br>7F20L | TV - Phono<br>AM - FM | 8.5W. | 2-3½<br>2-10 | .46<br>3.16 |
| MK2785W2 | Console (lift lid) | Wood | Grained | Walnut | 16K33<br>4K22<br>MHT15LZ<br>(9H20LZ4) | TV - Phono<br>AM - FM | 8.5W. | 2-3½<br>2-10 | .46<br>3.16 |
| MK2785R2 | Console (lift lid) | Wood | Grained | Mahogany | 16K33<br>4K22<br>MHT15LZ<br>(9H20LZ4) | TV - Phono<br>AM - FM | 8.5W. | 2-3½<br>2-10 | .46<br>3.16 |
| MK2785M2 | Console (lift lid) | Wood | Grained | Maple | 16K33<br>4K22<br>MHT15LZ<br>(9H20LZ4) | TV - Phono<br>AM - FM | 8.5W. | 2-3½<br>2-10 | .46<br>3.16 |

# FEATURES OF HIGH FIDELITY & STEREO FM MODELS

| RECORD CHANGER (SEE NOTES) | | | | CONTROL PANEL | INDICATOR LIGHT | TYPE OF IDENTIFICATION AND SPECIAL FEATURES | REVERBERATOR | RADIAL SOUND SPEAKER |
|---|---|---|---|---|---|---|---|---|
| TYPE | MOUNTING | CARTRIDGE | STYLUS | | | | | |
| 169-176 | Shelf | 142-127 | Diamond Sapphire | Die-Cast Escutcheon | No | ZENITH Stereophonic High Fidelity - Crest Bass Boost | None | KR102 |
| 169-176 | Shelf | 142-127 | Diamond Sapphire | Die-Cast Escutcheon | No | ZENITH Stereophonic High Fidelity - Crest Bass Boost | None | KR102 |
| 169-176 | Shelf | 142-127 | Diamond Sapphire | Die-Cast Escutcheon | No | ZENITH Stereophonic High Fidelity - Crest Bass Boost | None | KR102 |
| INCLUDES (IN TYPE OF IDENTIFICATION) STEREO FM RADIO | | | | | | | | |
| INCLUDES (IN TYPE OF IDENTIFICATION) STEREO FM RADIO | | | | | | | | |
| INCLUDES (IN TYPE OF IDENTIFICATION) STEREO FM RADIO | | | | | | | | |
| 169-176 | Shelf | 142-127 | Diamond Sapphire | Die-Cast Escutcheon | No | ZENITH Extended Stereophonic High Fidelity - Crest Stereo FM Radio Bass Boost | None | KR102 |
| 169-175 | Shelf | 142-128 | Diamond Sapphire | Die-Cast Escutcheon | Yes | ZENITH Stereophonic High Fidelity - Crest Stereo FM Radio Bass Boost | None | KR102 |
| 169-175 | Shelf | 142-128 | Diamond Sapphire | Die-Cast Escutcheon | Yes | ZENITH Stereophonic High Fidelity - Crest Stereo FM Radio Bass Boost | None | KR102 |
| 169-175 | Shelf | 142-128 | Diamond Sapphire | Die-Cast Escutcheon | Yes | ZENITH Stereophonic High Fidelity - Crest Stereo FM Radio Bass Boost | None | KR102 |
| 169-174 | Shelf | 142-128 | Diamond Sapphire | Die-Cast Escutcheon | Yes | ZENITH Extended Stereophonic High Fidelity - Crest Stereo FM Radio | None | KR105 |
| 169-174 | Shelf | 142-128 | Diamond Sapphire | Die-Cast Escutcheon | Yes | ZENITH Extended Stereophonic High Fidelity - Crest Stereo FM Radio | None | KR105 |
| 169-174 | Shelf | 142-128 | Diamond Sapphire | Die-Cast Escutcheon | Yes | ZENITH Extended Stereophonic High Fidelity Crest Stereo FM Radio | None | KR105 |
| 169-174 | Shelf | 142-128 | Diamond Sapphire | Die-Cast Escutcheon | Yes | ZENITH Extended Stereophonic High Fidelity - Crest Stereo FM Radio | None | KR105 |
| 169-173 | Shelf | 142-126 | Sapphire Sapphire | Silk Screened on Cabinet | No | ZENITH Stereophonic High Fidelity - Crest | None | None |
| 169-173 | Shelf | 142-126 | Sapphire Sapphire | Silk Screened on Cabinet | No | ZENITH Stereophonic High Fidelity - Crest | None | None |
| 169-173 | Shelf | 142-126 | Sapphire Sapphire | Silk Screened on Cabinet | No | ZENITH Stereophonic High Fidelity - Crest | None | None |
| 169-173 | Shelf | 142-126 | Sapphire Sapphire | Silk Screened on Cabinet | No | ZENITH Stereophonic High Fidelity - Crest Stereo FM Radio | None | None |
| 169-173 | Shelf | 142-126 | Sapphire Sapphire | Silk Screened on Cabinet | No | ZENITH Stereophonic High Fidelity - Crest Stereo FM Radio | None | None |
| 169-173 | Shelf | 142-126 | Sapphire Sapphire | Silk Screened on Cabinet | No | ZENITH Stereophonic High Fidelity - Crest Stereo FM Radio | None | None |

# FEATURES OF HIGH FIDELITY & STEREO FM MODELS

| MODEL NO. | CABINET | | | | CHASSIS | | | SPEAKER | |
|---|---|---|---|---|---|---|---|---|---|
| | STYLE | MATERIAL | FINISH | COLOR | MODEL | TYPE | EIA POWER OUTPUT | SIZE (IN.) | MAGNET (WT. OZ.) |
| MK2786W2 | Console (lift lids) | Wood | Wood | Walnut | 16K33<br>4K21<br>MHT15LZ<br>(9H20LZ4) | TV - Phono<br>AM - FM | 8.5W. | 2-3½<br>2-10 | .85<br>6.8 |
| MK2786R2 | Console (lift lids) | Wood | Wood | Mahogany | 16K33<br>4K21<br>MHT15LZ<br>(9H20LZ4) | TV - Phono<br>AM - FM | 8.5W. | 2-3½<br>2-10 | .85<br>6.8 |
| MK2786L2 | Console (lift lids) | Wood | Wood | Blond Walnut | 16K33<br>4K21<br>MHT15LZ<br>(9H20LZ4) | TV - Phono<br>AM - FM | 8.5W. | 2-3½<br>2-10 | .85<br>6.8 |
| MK2787M2 | Console (lift lids) | Wood | Wood | Maple | 16K32<br>8K30<br>MHT15LZ<br>(9H20LZ4) | TV - Phono<br>AM - FM | 20W. | 2-3½<br>2-10 | .85<br>6.8 |
| MK3388H2 | Console (lift lids) | Wood | Wood | Cherry | 16K32QS<br>8K30<br>MHT15LZ<br>(9H20LZ4) | TV - Phono<br>AM - FM | 20W. | 2-5¼<br>2-12 | 1.0<br>6.8 |
| 7100W | Console (lift lids) | Wood | Wood | Walnut | 26KC20<br>4K21<br>MHT15LZ<br>(9H20LZ4) | Color TV<br>Phono<br>AM - FM | 8.5W. | 2-3½<br>2-10 | .85<br>6.8 |
| 7500W2 | Console (lift lids) (Folding Doors) | Wood | Wood | Walnut | 26KC20QS<br>12K25Z<br>7K31Z | Color TV<br>Phono<br>AM - FM | 40W. | 4-3½<br>2-Horn<br>2-12 | .46<br>4.28<br>13.0 |
| KR102W | Table | Wood | Wood | Walnut | – – – | – – – | – – – | 3½<br>6 x 9 | .46<br>3.16 |
| KR105W | Table | Wood | Wood | Walnut | – – – | – – – | – – – | Horn<br>6 x 9 | 4.28<br>3.16 |

# FEATURES OF HIGH FIDELITY & STEREO FM MODELS

| RECORD CHANGER (SEE NOTES) | | | | CONTROL PANEL | INDICATOR LIGHT | TYPE OF IDENTIFICATION AND SPECIAL FEATURES | REVERBERATOR | RADIAL SOUND SPEAKER |
|---|---|---|---|---|---|---|---|---|
| TYPE | MOUNTING | CARTRIDGE | STYLUS | | | | | |
| 169-176 | Shelf | 142-127 | Diamond Sapphire | Die-Cast Escutcheon | No | ZENITH Stereophonic High Fidelity - Crest Stereo FM Radio Bass Boost | None | KR102 |
| 169-176 | Shelf | 142-127 | Diamond Sapphire | Die-Cast Escutcheon | No | ZENITH Stereophonic High Fidelity - Crest Stereo FM Radio Bass Boost | None | KR102 |
| 169-176 | Shelf | 142-127 | Diamond Sapphire | Die-Cast Escutcheon | No | ZENITH Stereophonic High Fidelity - Crest Stereo FM Radio Bass Boost | None | KR102 |
| 169-176 | Shelf | 142-127 | Diamond Sapphire | Die-Cast Escutcheon | No | ZENITH Stereophonic High Fidelity - Crest Stereo FM Radio | None | KR102 |
| 169-175 | Shelf | 142-128 | Diamond Sapphire | Die-Cast Escutcheon | No | ZENITH Stereophonic High Fidelity - Crest SPACE COMMAND Four hundred Stereo FM Radio | None | KR102 |
| 169-176 | Shelf | 142-127 | Diamond Sapphire | Die-Cast Escutcheon | No | ZENITH Color TV Color Emblem - Crest Stereo FM Radio Bass Boost | None | KR102 |
| 169-174 | Shelf | 142-128 | Diamond Sapphire | Die-Cast Escutcheon | Yes | ZENITH Color TV Color Emblem - Crest Extended Stereophonic High Fidelity SPACE COMMAND Four hundred Stereo FM Radio | None | KR105 |
| - - - | - - - | - - - | - - - | - - - | No | ZENITH Radial Sound | - - - | - - - |
| - - - | - - - | - - - | - - - | - - - | No | ZENITH Radial Sound | - - - | - - - |

# GENERAL

## MUTING CONTROL

The 25K muting control which supplies a back bias voltage to the cathode of the 19KC pilot amplifier is factory adjusted, and should not require readjustment. However, if the receiver is operated in an extremely noisy area, there is a possibility that there may be noise bursts of sufficient magnitude to overcome this mute voltage. . . when this occurs, the Stereophonic FM Indicator will light up. To further cut off the 19 KC pilot amplifier, carefully rotate the 25KC muting control in a counter-clockwise direction. This should only be done when a stereo signal is on the air since the mute control must only be advanced to a point where the Stereo Indicator does not light up on noise, but it should not be advanced to a point where the desired stereo signal is cut off.

## MULTIPLEX ALIGNMENT

These receivers have been properly aligned at the factory and will not require further adjustment. As a result, it is not recommended that any attempt be made to alter the multiplex stages. However, should any major components in these circuits require replacement then, of course, realignment will be necessary.

At the present time test equipment is not available, therefore, we have not included multiplex alignment procedure. However, as soon as qualified equipment is available, we shall supplement this manual with multiplex alignment procedures.

## ANTENNAS FOR STEREO FM

Due to the characteristics of the stereo FM system, it will require more signal for proper performance than does monaural FM. As a result, it may be necessary to operate the stereo FM receiver with an external antenna. The necessity for an external antenna will be determined by the signal conditions at each individual installation.

## EXTERNAL FM ANTENNA

If the receiver is operated in an area of either low signal strength, high noise, or where multipath (FM ghosts) signals are present, a good external FM antenna will be required. The necessity of an external antenna as a result of weak signal or noise, will be quite evident since the set will not limit, and/or noise will be quite evident. It is extremely difficult to determine if multipath (FM ghosts) signals are present, however, should the program material be distorted, the best manner to decide if multipath signals are the cause of the problem, is to connect an external FM antenna to the receiver. Usually a TV antenna may be available for trial, but even then the results can be misleading, since many TV antennas are of low gain on FM frequencies.

## FM CABINET ANTENNA

All models except the MJ1035 contain an FM antenna built into the cabinet. This antenna consists of a length of wire cut to the desired frequency, and attached to the internal periphery of the cabinet. The MJ1035 uses a built in line antenna.

## SIGNAL STRENGTH CHART

There are certain minimum voltages necessary for proper stereo FM reception. To help determine if there is sufficient signal available, the following developed AGC voltage versus microvolt input voltage charts have been compiled. Since the desired FM Station may not always be operating in the stereo mode when an installation is made, these AGC voltage measurements have been taken with a monaural FM signal. The point "*" of minimum AGC voltage necessary for good stereo FM reception has been indicated on these charts. For chassis 9H20LZ3, 9H20LZ4, 9H21LZ2, 12J01, 12J01Z, 12K25Z and 12K26Z connect a V.T.V.M. to the rear terminal of the FM antenna coil. This is the AGC line connected to Pin #2 of the 6JK8 RF amplifier.

**Chassis 9H20LZ3, 9H20LZ4, 9H21LZ2, 12J01, 12J01Z**

| Micro-volts Input | AGC Voltage at RF Coil |
|---|---|
| 0 | .8 |
| 25 | .95 |
| 50 | 1.27 |
| 100 | 1.6 |
| 200 | 1.95 |
| 500 | 2.35 |
| 1 K | *2.7 |
| 5 K | 3.6 |
| 10 K | 4.0 |
| 20 K | 4.5 |
| 50 K | 5.1 |
| 100 K | 5.6 |

**Chassis 12K25Z, 12K26Z**

| Micro-volts Input | AGC Voltage at RF Coil |
|---|---|
| 0 | .75 |
| 10 | .82 |
| 20 | .9 |
| 50 | 1.32 |
| 100 | 1.72 |
| 200 | 2.1 |
| 500 | 2.6 |
| 1 K | *2.95 |
| 2 K | 3.3 |
| 5 K | 3.85 |
| 10 K | 4.3 |
| 20 K | 4.8 |
| 50 K | 5.3 |
| 100 K | 6.0 |

## AUTOMATIC FREQUENCY CONTROL AFC

Some of these receivers feature an automatic frequency control which automatically keeps your receiver on the exact station frequency when you are tuned to an FM station. To utilize this feature tune the receiver as instructed and then turn the band switch to AFC position.

When the desired FM station is a weak station, adjacent in frequency to a strong station, the AFC may pull the tuning into the stronger station. Under these conditions, place the bandswitch in FM position and tune the receiver as instructed.

Tuning the receivers on the frequency modulation band will require more care than on the broadcast band. A hissing sound may be noted when tuning between Frequency Modulation stations. This is nor-

mal, and will disappear as the station is tuned in. After a station is located, the pointer should be moved back and forth over it until the point of quietest reception and best tone quality is found. Correct tuning is indicated by the disappearance of background noise.

## 6BQ5 BALANCE CONTROL

On some chassis if one or both of the 6BQ5 output tubes in each final audio amplifier are replaced, it will be necessary to connect a DC volt meter across the balance terminals and adjust the balance control for minimum voltage.

## SPEAKER PHASING

It is most important that coded speaker leads be connected to coded terminals on speakers for proper polarity within each speaker group. It is also then most important that the speaker groups be in phase with each other. One excellent method to determine if the speaker groups are in phase is to play a monaural record as described under Automatic Balance Control.

Under these conditions the sound should appear to come from a point midway between the two speaker groups. If the sound comes from any other point than midpoint, then one speaker group is out of phase with the other and you should check polarity. One of the easiest methods of checking polarity within the speaker group is to momentarily place a 4-1/2 volt battery across the speaker feed terminals. All the speaker cones should simultaneously move in the same direction.

## FM, RF, AND IF ALIGNMENT
## CHASSIS 9H20LZ3 - 9H20LZ4 - 9H21LZ2 - 12J01 - 12J01Z- 12K25Z - 12K26Z

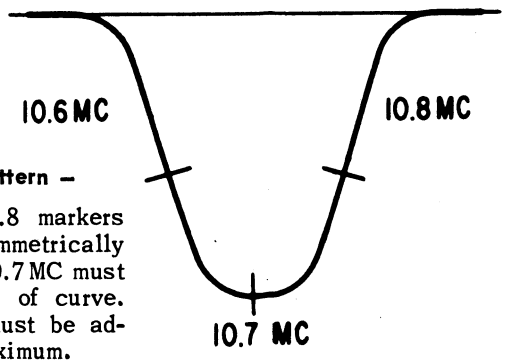
Alignment of these chassis will, in most cases, not be necessary unless an RF or IF transformer is replaced or if someone has tampered with the adjustments.

Because of the wide band pass required in the multiplex FM tuner, it is desirable to use an FM signal generator having a deviation of 400 KC with a sweep rate of 60 cycles as well as an oscilloscope when aligning both the IF and RF FM portions of this receiver. It is not only necessary to obtain maximum amplitude in the IF amplifier stages, but also necessary to maintain symmetry. To help achieve this symmetry, it is desirable to have 10.6, 10.7, and 10.8 megacycle markers in obtaining IF curve symmetry. The scope pattern example illustrating marker use to obtain this symmetry, is in illustration B.

The condenser mentioned further on in the alignment procedure should be as small as possible and the ground lead of the generator must be connected to the chassis at the base of the tube socket, where the signal is being injected. Should the signal be injected at some point other than a tube socket, then the ground lead should be connected to ground as closely as possible to this point.

In all alignment procedures, the signal generator output should be kept just high enough to obtain an indication. This is most necessary, since on some chassis we have a zero time constant limiter which will clip the signals if their magnitude is too great, resulting in erroneous waveforms.

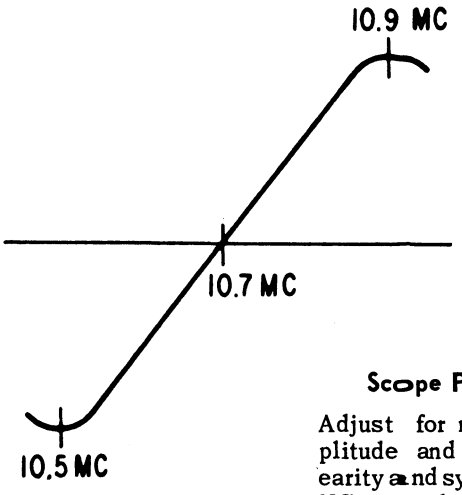
A. Connect scope or V.T.V.M. to Pin #1 of the 6AU6 limiter. The common scope or V.T.V.M. terminal should be connected to chassis.




**Scope Pattern –**

10.6 and 10.8 markers must be symmetrically positioned. 10.7 MC must be at center of curve. This point must be adjusted for maximum.

B. Connect scope or V.T.V.M. to junction of 100 ohm and 330 mmf capacitor. This 100 ohm resistor is connected to terminal #6 of the ratio detector transformer.




**Scope Pattern –**

Adjust for maximum amplitude and maintain linearity and symmetry. 10.7 MC must be on curve at base line.

## AM ALIGNMENT

C. An AC output meter connected across the primary or secondary of the output transformer will be satisfactory for all AM, IF, and RF adjustments.

## NEUTRALIZING 6JK8 R.F. AMPLIFIER
**Equipment – Bias Supply (Variable 0 to 20 Volts)**

1. Tune receiver to 108 mc.
2. Insert a 108 mc R.F. signal at FM-G antenna terminals.
3. Connect V.T.V.M. or scope to Pin #1 grid of the 6AU6 limiter. The common scope or V.T.V.M. terminal should be connected to chassis.
4. Remove the AGC line from the tuner feed through

and connect the ( – ) negative lead of the bias supply to this point. Connect the ( + ) terminal to chassis.

5. Adjust the bias supply to approximately -10 volts.
6. Carefully vary the position of the two wires adjacent to the body of C5 until minimum output is obtained, from the limiter grid test point.

## RF AND IF ALIGNMENT CHASSIS 7F20Z - 7K21

Alignment of these chassis will, in most cases, be unnecessary unless an IF or RF transformer is replaced or the adjustments have been tampered with.

FM Discriminator Alignment: When the secondary of the discriminator is aligned (operation 5) use sufficient signal input to get a good positive and negative indication before setting the slug for zero reading. A center zero indicating meter is recommended for this adjustment, but is not absolutely necessary. Reversing the leads of a non-zero center meter, or observing closely when the meter starts to go to the left (negative) of zero will give the same results.

FM IF Alignment: Because of the wide band pass, it is desirable to use a FM signal generator and a cathode ray oscilloscope when aligning the FM IF channel. The instruction book for the Zenith Model 800 Signal Generator (Form Z8001) covers complete FM alignment procedure. If visual alignment equipment is unavailable, reasonably accurate alignment can be made by following the procedure outlined in this service note.

Correct alignment can only be made if the following procedure is followed:

A vacuum tube voltmeter with an isolation resistor of 2,000,000 ohms in series with the hot lead will serve for FM adjustments. This lead should be shielded.

The signal generator output should be kept just high enough to get an indication on the meter.

(a) Vacuum Tube Voltmeter Lug 7 on discriminator transformer to chassis (half discriminator load).
(b) Vacuum Tube Voltmeter Lug 5 on discriminator transformer to chassis (full discriminator load).
(c) Vacuum Tube Voltmeter from Limiter Grid to Chassis.
(d) Loosen Slugs by applying a hot iron to the cement.
(e) Vacuum Tube Voltmeter Lug 6 of T3B to Chassis.

| OPERATION | CONNECT OSCILLATOR TO | DUMMY ANTENNA | INPUT SIGNAL FREQUENCY | BAND | SET DIAL TO | ADJUST | PURPOSE |
|---|---|---|---|---|---|---|---|
| 1(e) | Pin 2 12AT7 Converter | .05 Mfd. | 455 Kc. 400 Cycle Modulated | BC | 600 Kc. | L9, 10, 11, 15, 16 | Align IF channel for maximum output |
| 2(e) | 2 turns loosely coupled to wavemagnet | | 1600 Kc. 400 Cycle Modulated | BC | 1600 Kc. | C6D | Set oscillator to dial scale |
| 3(e) | 2 lurns loosely coupled to wavemagnet | | 1400 Kc. 400 Cycle Modulated | BC | 1400 Kc. | C6B | Align antenna stage |
| 4(a) | Pin 1 (grid) on 12AU6 limiter | .05 Mfd. | 10.7 Mc. Unmodulated | FM | | L17 coil slug pri. discr. | Align primary of discriminator for maximum reading |
| 5(b) | Pin 1 (grid) on 12AU6 limiter | .05 Mfd. | 10.7 Mc. Unmodulated | FM | | L18 coil slug sec. of discr. | Adjust secondary of discriminator for zero reading |
| 6(c) | Pin 1 (grid) on 12BA6 2nd I.F. | .05 Mfd. | 10.7 Mc. Unmodulated | FM | | L13 & L14 pri. & sec. of 3rd IF transf. | Align 3rd IF transf. for max. reading |
| 7(c) | Pin 1 (grid) on 12BA6 1st IF | .05 Mfd. | 10.7 Mc. Unmodulated | FM | | L12 pri. of 2nd IF transf. | Align 2nd IF transf. for max. reading |
| 8(c) | Pin 2 (grid) on 12AT7 converter tube socket | .05 Mfd. | 10.7 Mc. Unmodulated | FM | | L7 & L8 pri. & sec. of 1st IF transf. | Align 1st IF transf. for max. reading |
| 9(c) (d) | Antenna Post FM | 270 Ohms | 98 Mc. Unmodulated | FM | 98 Mc. | L4 osc. coil slug | Set osc. to dial scale |
| 10(c) (d) | (Remove line ant.) | 270 Ohms | 98 Mc. Unmodulated | FM | 98 Mc. | L6 det. coil slug | Align det. stage to max. reading |

For A, B, C, D, E See Page 14

## RF AND IF ALIGNMENT PROCEDURE FOR CHASSIS 7F20Z-7K21

| OPERATION | CONNECT GENERATOR TO | DUMMY ANTENNA | INPUT SIGNAL FREQUENCY | SET DIAL TO | ADJUST IRON CORES | PURPOSE |
|---|---|---|---|---|---|---|
| 1 B | Pin #1 6AU6 Limiter Grid | .001 mfd | 10.7 Mc. 400 Kc. Deviation | 88 Mc. | L15 | Adjust primary and secondary of ratio detector for maximum amplitude and symmetry as shown in Scope Pattern "B" |
| 2 B | Pin #1 6AU6 Limiter Grid | .001 mfd | 10.7 Mc 400 Kc. Deviation | 88 Mc. | L17 | |
| 3 A | Pin #1 6BA6 2nd I.F. Grid | .001 mfd | 10.7 Mc. 400 Kc. Deviation | 88 Mc. | L11, L12 | Align I.F. transformers for maximum output and symmetry; this pattern is not necessarily identical to the over all Scope Pattern "A" |
| 4 A | Pin #1 6BA6 1st I.F. Grid | .001 mfd | 10.7 Mc. 400 Kc. Deviation | 88 Mc. | L7, L8 | |
| 5 A | Junction C9, and L2 FM Detector Coil | .001 mfd | 10.7 Mc. 400 Kc. Deviation | 88 Mc. | L4, L5 | Align I.F. transformers for maximum out & symmetry as indicated in Scope Pattern "A" |
| 6 A | | .001 mfd | 10.7 Mc. 400 Kc. Deviation | 88 Mc. | Readjust L4, L5, L7, L8 L11, L12 | |
| 7 A | FM Antenna post (remove antenna) | 300 ohms | 98 Mc. 400 Kc. Deviation | 98 Mc. | L3 | Set Oscillator to dial scale |
| 8 A | FM Antenna post (remove antenna) | 300 ohms | 98 Mc. 400 Kc. Deviation | 98 Mc. | L2 & L1 | Align detector and antenna stages for maximum |
| 9 C | Pin #1 6BE6 Converter Grid | .05 | 455 Kc. 400 Cycle Modulated | 600 Kc. | L21, L22, L9, L10, L13, L14 | Align AM, I.F. for maximum |
| 10 C | Two turn loop loosely coupled to Wavemagnet | | 1600 Kc. 400 Cycle Modulated | 1600 Kc. | C34F | Set oscillator to dial scale |
| 11 C | Two turn loop loosely coupled to Wavemagnet | | 1400 Kc. 400 Cycle Modulated | 1400 Kc. | C34D, C34B | Align detector and antenna stages. |

For A, B, C See Page 13

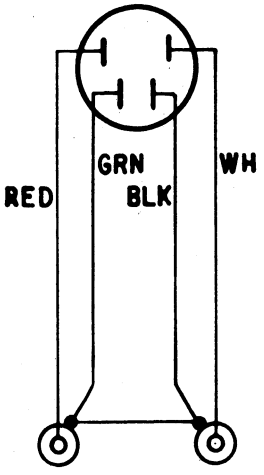
| OPERATION | CONNECT GENERATOR TO | DUMMY ANTENNA | INPUT SIGNAL FREQUENCY | SET DIAL TO | ADJUST IRON CORES | PURPOSE |
|---|---|---|---|---|---|---|
| 1 B | Pin #1 6AU6 2nd limiter grid | .001 mfd | 10.7 Mc. 400 Kc. Deviation | 88 Mc. | L11 | Adjust primary and secondary of ratio detector for maximum amplitude & symmetry as shown in Scope Pattern "B" |
| 2 B | Pin #1 6AU6 2nd limiter grid | .001 mfd | 10.7 Mc. 400 Kc. Deviation | 88 Mc. | L13 | |
| 3 A | Pin #2 6BN6 1st limiter grid | .001 mfd | 10.7 Mc. 400 Kc. Deviation | 88 Mc. | L10 | Align I.F. transformers for maximum output & symmetry This pattern is not necessarily identical to the overall Scope Pattern "A" |
| 4 A | Pin #2 6EQ7 2nd I.F. grid | .001 mfd | 10.7 Mc. 400 Kc. Deviation | 88 Mc. | L8, L9 | |
| 5 A | Pin #1 6BA6 1st I.F. grid | .001 mfd | 10.7 Mc. 400 Kc. Deviation | 88 Mc. | L6, L7 | |
| 6 A | Junction C9, and L2 FM Detector Coil | .001 mfd | 10.7 Mc. 400 Kc. Deviation | 88 Mc. | L4, L5 | Align I.F. transformers for maximum output & symmetry as indicated in Scope Pattern "A" |
| 7 A | | .001 mfd | 10.7 Mc. 400 Kc. Deviation | 88 Mc. | Readjust L4, L5, L6, L7, L8, L9, L10 | |
| 8 A | FM antenna post (remove antenna) | 300 ohms | 98 Mc. 400 Kc. Deviation | 98 Mc. | L3 | Set oscillator to dial scale |
| 9 A | FM antenna post (remove antenna) | 300 ohms | 98 Mc. 400 Kc. Deviation | 98 Mc. | L2 & L1 | Align detector and antenna stages for maximum. |
| 10 C | Pin #1 6BE6 converter grid | .05 | 455 Kc. 400 Cycle Modulated | 600 Kc. | L21, L22, L14, L15, L16, L17 | Align AM I.F. for maximum |
| 11 C | Two turn loop loosely coupled to wavemagnet | | 1600 Kc. 400 Cycle Modulated | 1600 Kc. | C38F | Set oscillator to dial scale |
| 12 C | Two turn loop loosely coupled to wavemagnet | | 1400 Kc. 400 Cycle Modulated | 1400 Kc. | C38D & C38B | Align detector and antenna stages |

For A, B, C See Page 13

## CHANGER, CARTRIDGE AND STYLUS INFORMATION

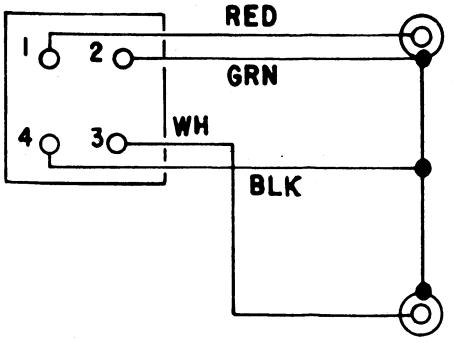
| CHANGER | CARTRIDGE | STYLII | DESCRIPTION |
|---|---|---|---|
| | 142-95 | 1.0 56-371<br>3.0 56-372 | |
| 169-171 | 142-127 | Shaft Housing & Stylus Assembly S-55805 | Diamond & Sapphire |
| 169-172 | 142-127 | Shaft Housing & Stylus Assembly S-55805 | Diamond & Sapphire |
| 169-173 | 142-126 | S-55804 | Sapphire & Sapphire |
| 169-174 | 142-128 | Shaft Housing & Stylus Assembly S-55805 | Diamond & Sapphire |
| 169-175 | 142-128 | Shaft Housing & Stylus Assembly S-55805 | Diamond & Sapphire |
| 169-176 | 142-127 | Shaft Housing & Stylus Assembly S-55805 | Diamond & Sapphire |
| 169-177 | 142-124 | 1.0 56-371<br>3.0 56-372 | Sapphire & Sapphire |
| 169-179 | 142-122 | 2.7 56-466<br>.7 56-467 | Sapphire & Sapphire |
| | or | | |
| | 142-133 | 3.0 Dual Stylus<br>.7 56-495 | Sapphire & Sapphire |
| 169-181 | 142-128 | Shaft Housing & Stylus Assembly S-55805 | Diamond & Sapphire |
| 169-182 | 142-127 | Shaft Housing & Stylus Assembly S-55805 | Diamond & Sapphire |
| 169-183 | 142-125 | | Sapphire & Sapphire |
| 169-184 | 142-113 | 2.5 56-441B<br>.7556-442B | Sapphire & Sapphire |
| 169-185 | 142-103 | Non-replaceable | Sapphire & Sapphire |
| 169-186 | 142-126 | S-55804 | Sapphire & Sapphire |
| 169-187 | 142-126 | S-55804 | Sapphire & Sapphire |
| 169-189 | 142-126 | S-55804 | Sapphire & Sapphire |
| 169-190 | 142-126 | S-55804 | Sapphire & Sapphire |

TERMINAL VIEW



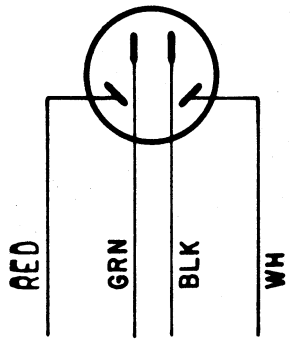

142—103 CARTRIDGE CONNECTIONS

TERMINAL VIEW OF CARTRIDGE



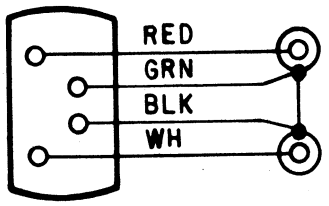

142—113 CARTRIDGE CONNECTIONS

TERMINAL END VIEW
OF CARTRIDGE

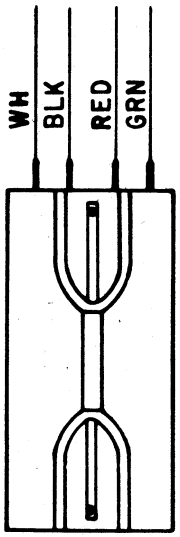



142–122 CARTRIDGE
CONNECTIONS

TERMINAL VIEW
OF CARTRIDGE



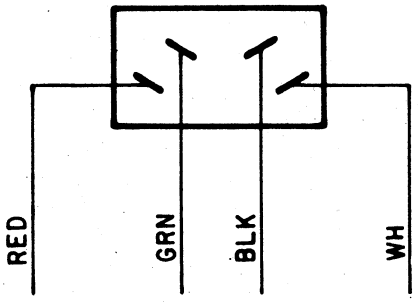

142–124 CARTRIDGE
CONNECTIONS



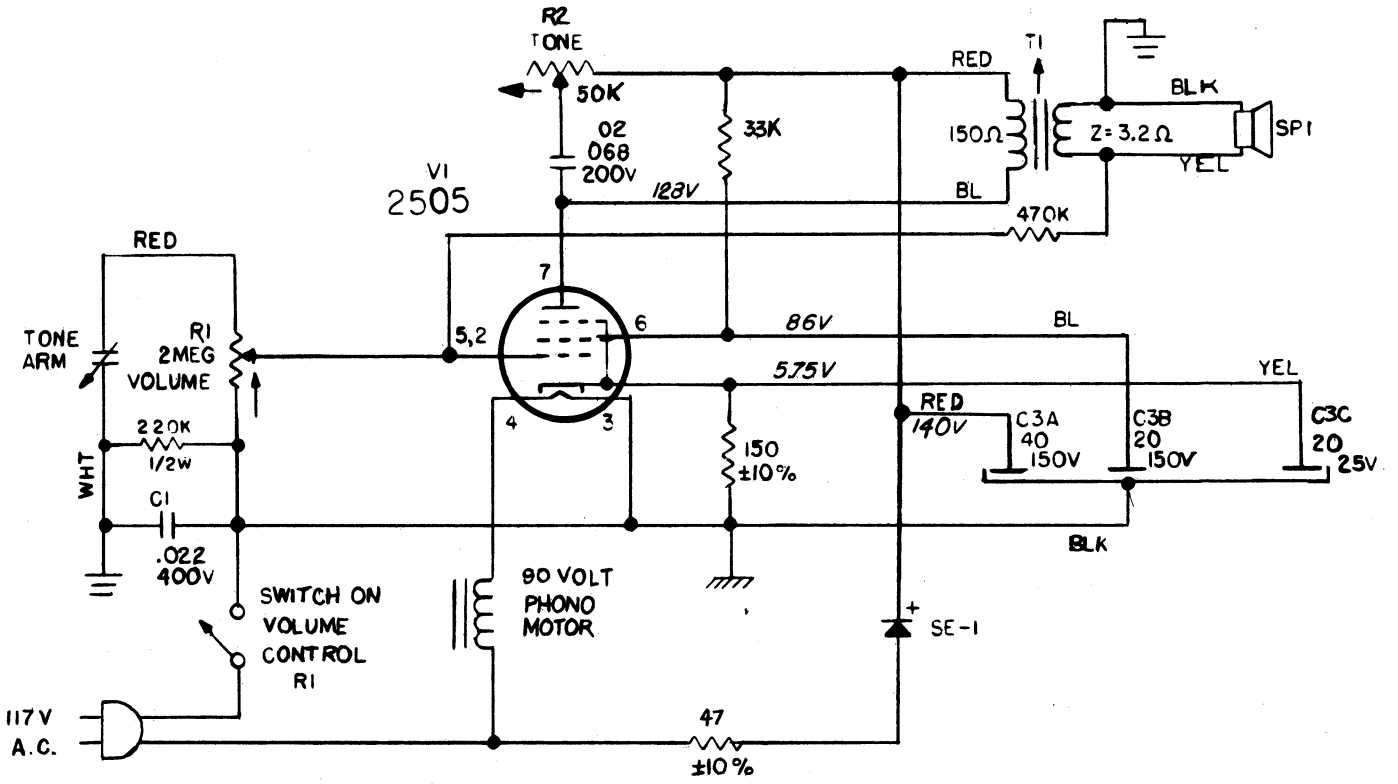

BOTTOM VIEW
OF CARTRIDGE

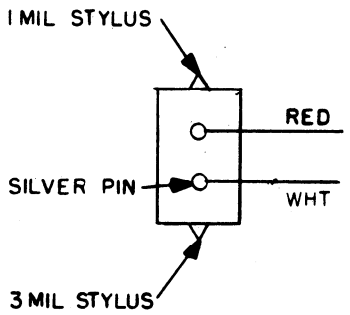
142–126–127–128 CARTRIDGE
CONNECTIONS

TERMINAL VIEW
OF CARTRIDGE




142–133 CARTRIDGE
CONNECTIONS



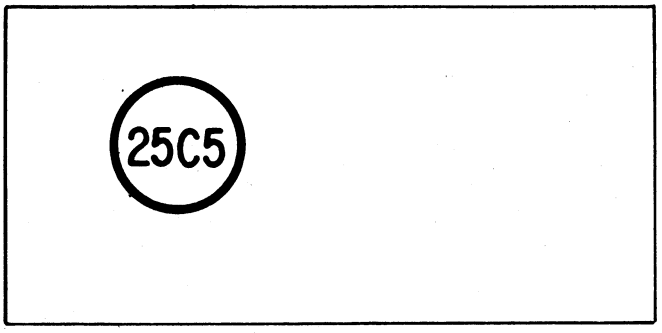




TERMINAL VIEW
OF CARTRIDGE

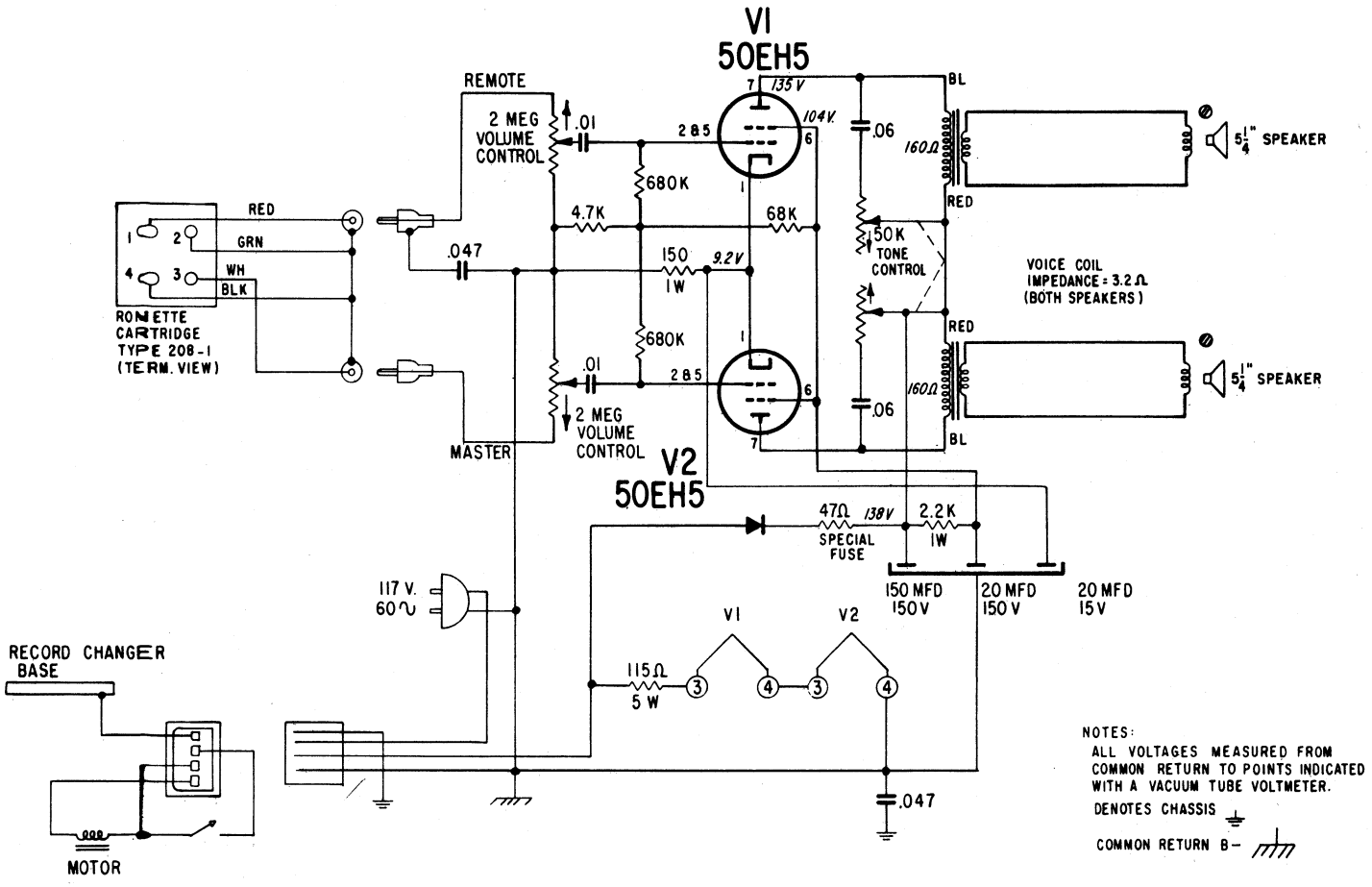
DENOTES
COMMON RETURN B-

DENOTES
CHASSIS

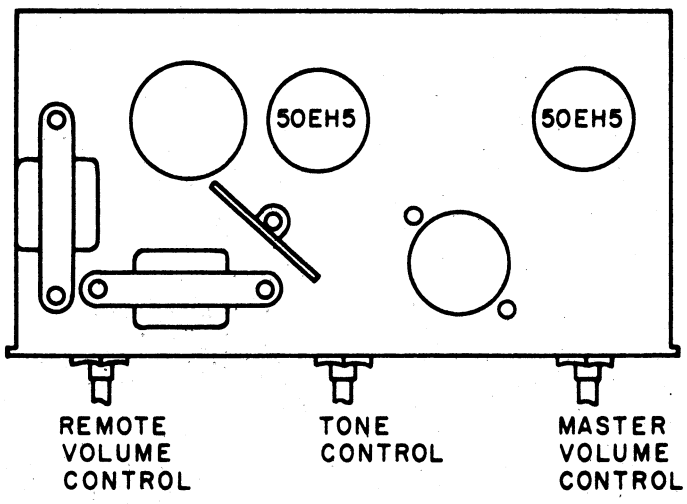
**SCHEMATIC FOR ZP2**



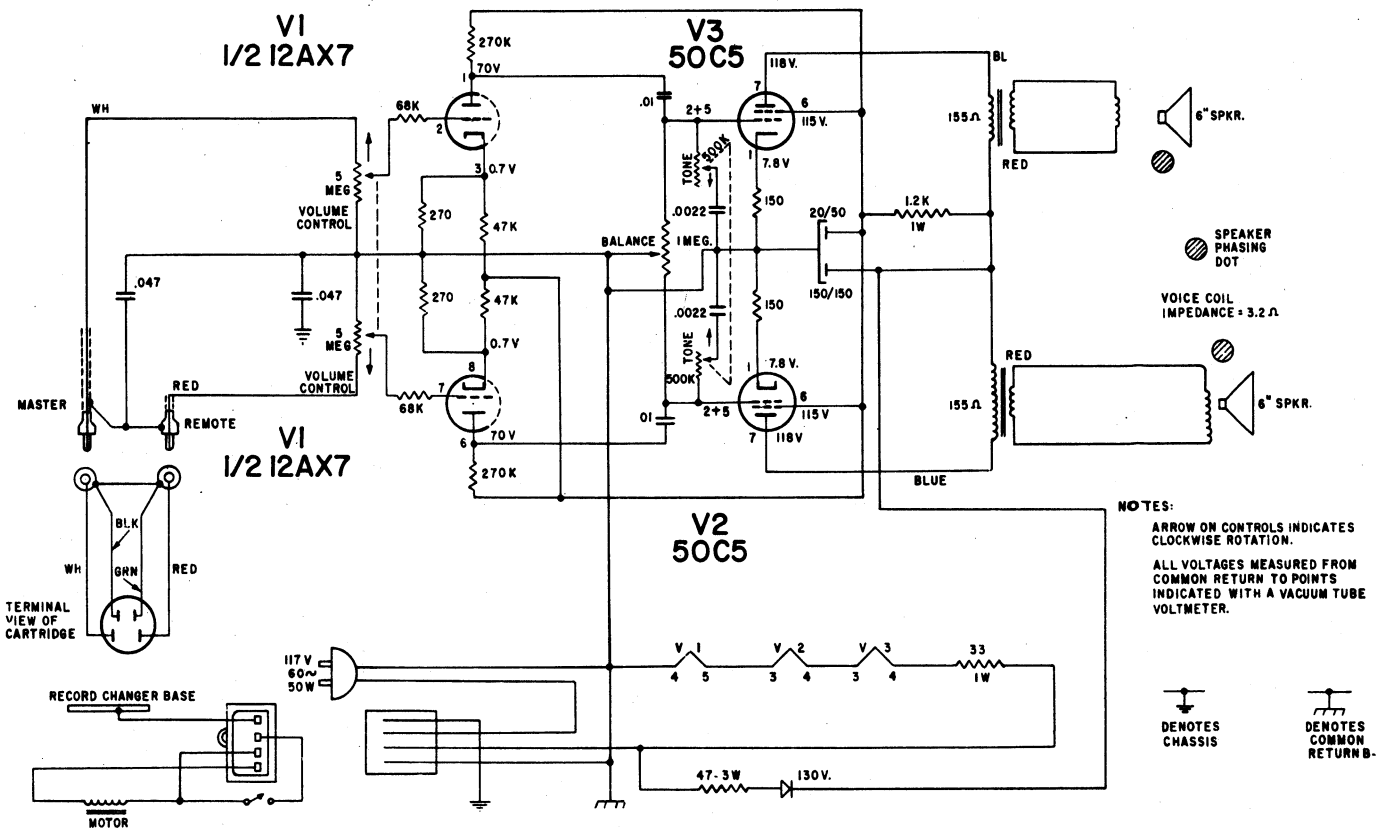

**TUBE LAYOUT FOR ZP2**



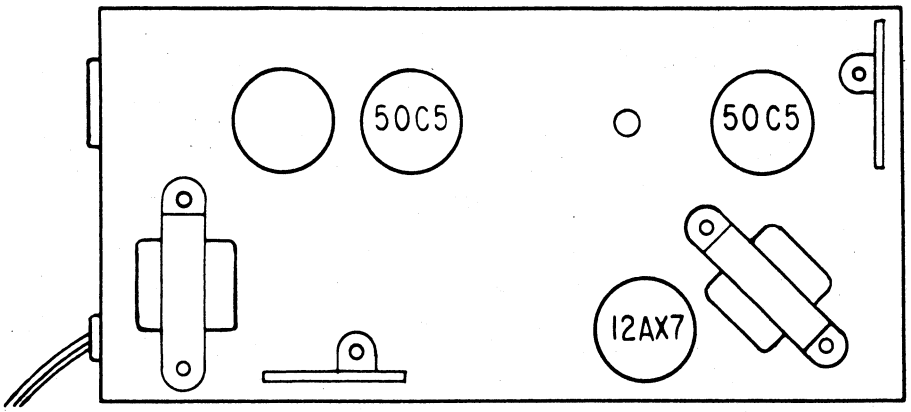

SCHEMATIC FOR KPS45



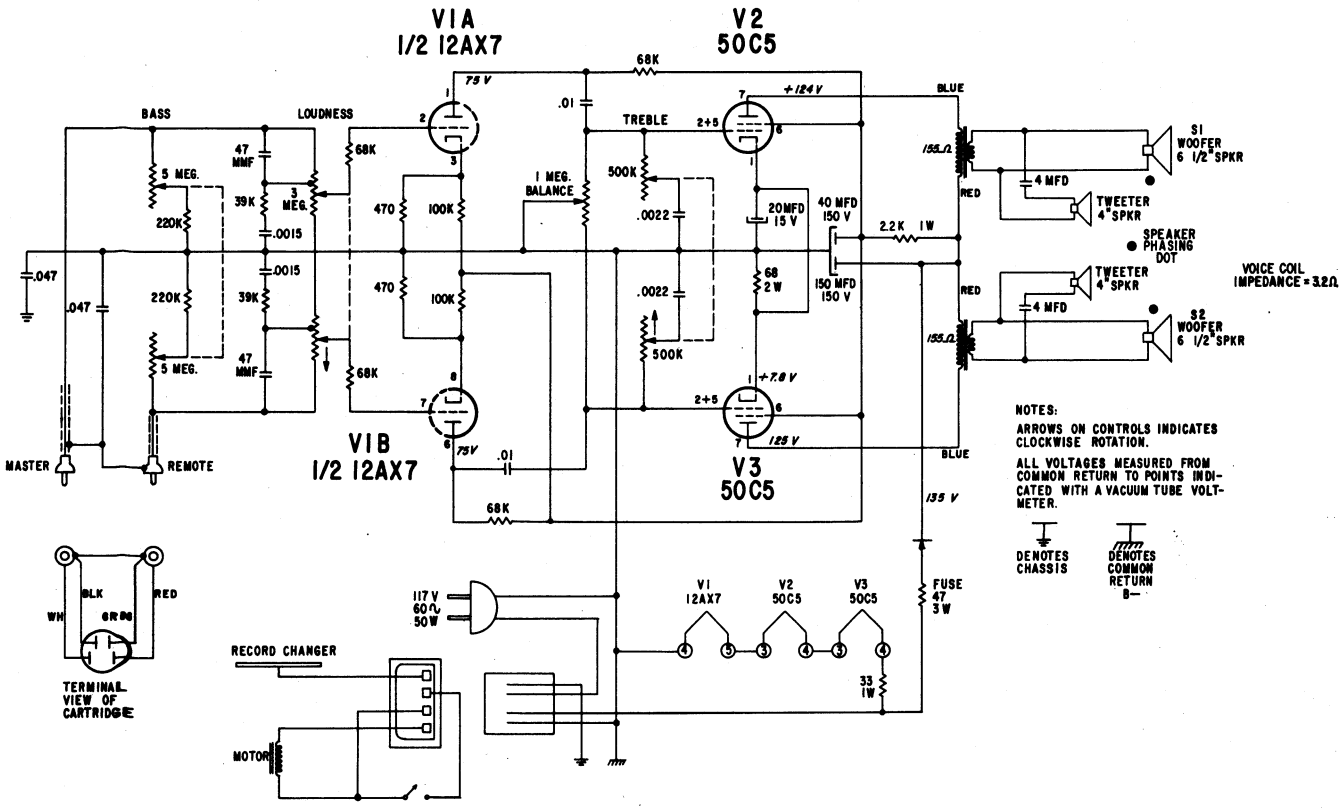

TUBE LAYOUT FOR KPS45



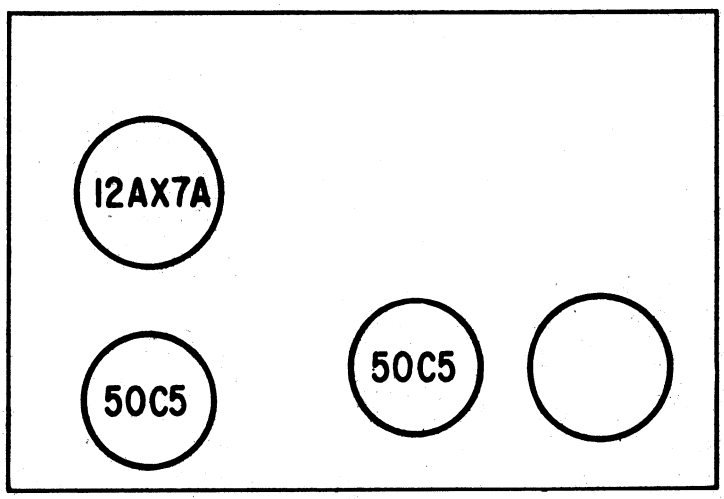

SCHEMATIC FOR KPS50



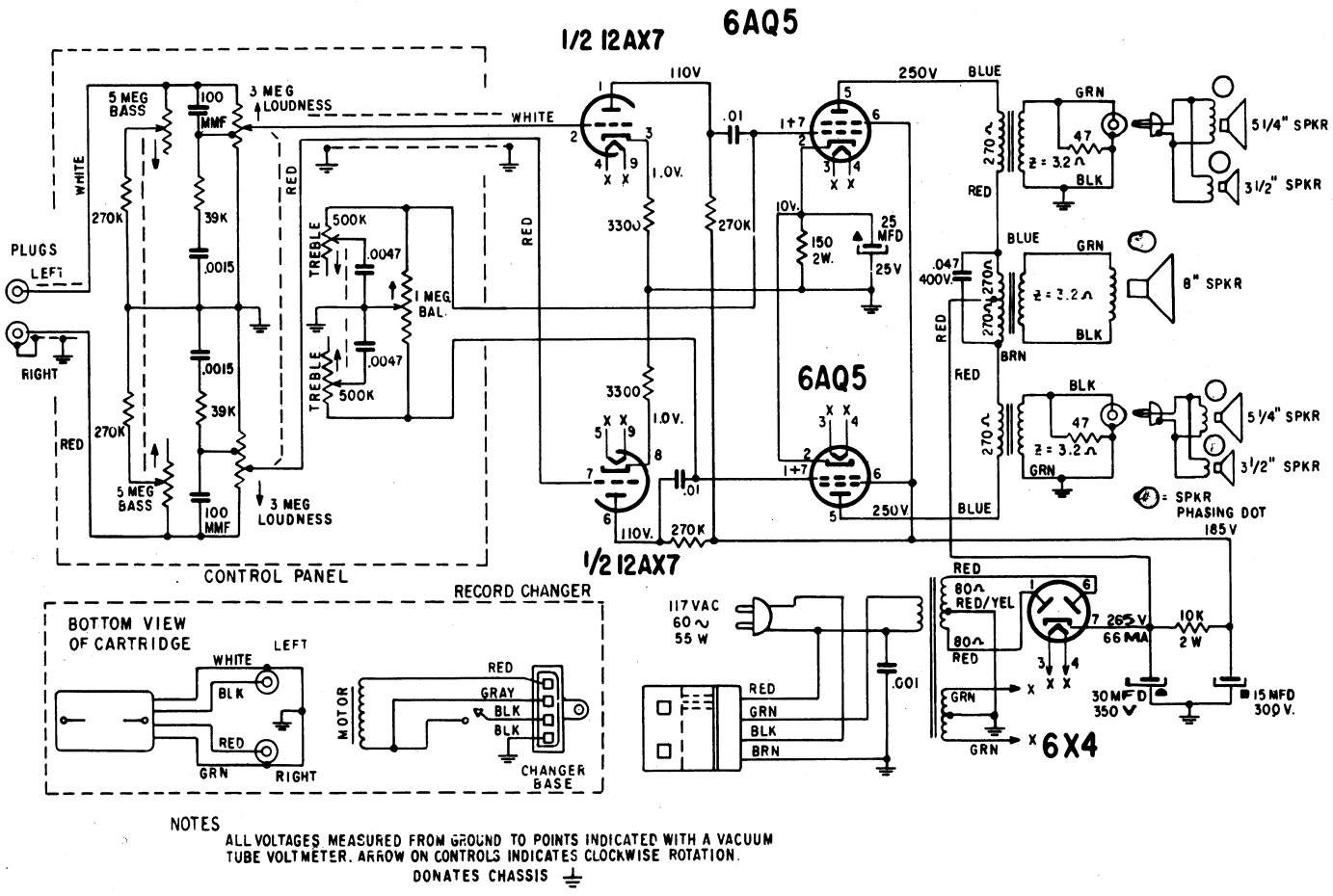

TUBE LAYOUT FOR KPS50




SCHEMATIC FOR KPS70




TUBE LAYOUT FOR KPS70

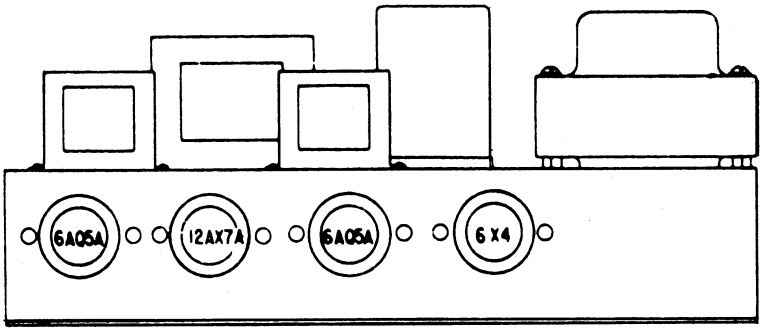



NOTES

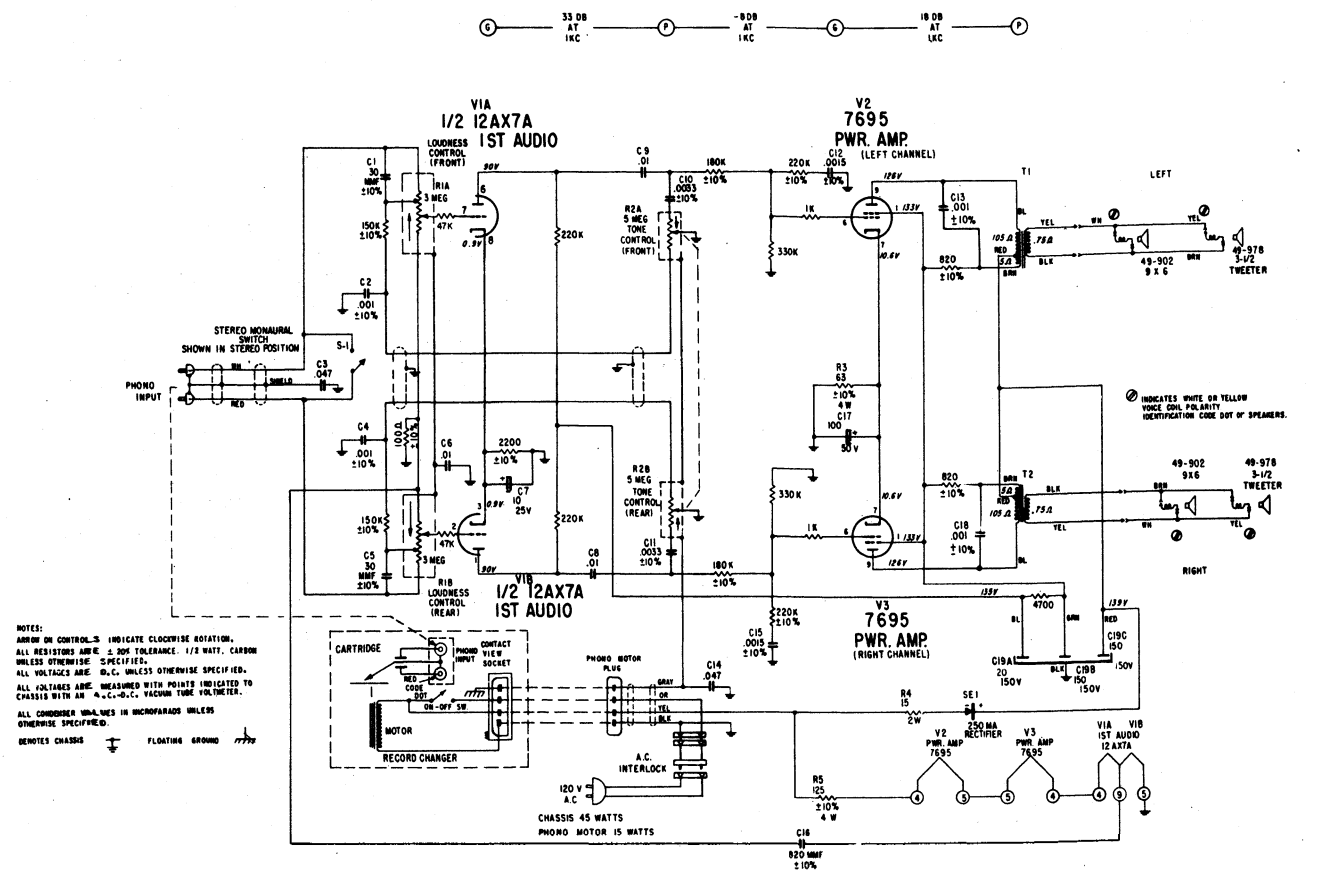
ALL VOLTAGES MEASURED FROM GROUND TO POINTS INDICATED WITH A VACUUM TUBE VOLTMETER. ARROW ON CONTROLS INDICATES CLOCKWISE ROTATION.

DONATES CHASSIS ⏚

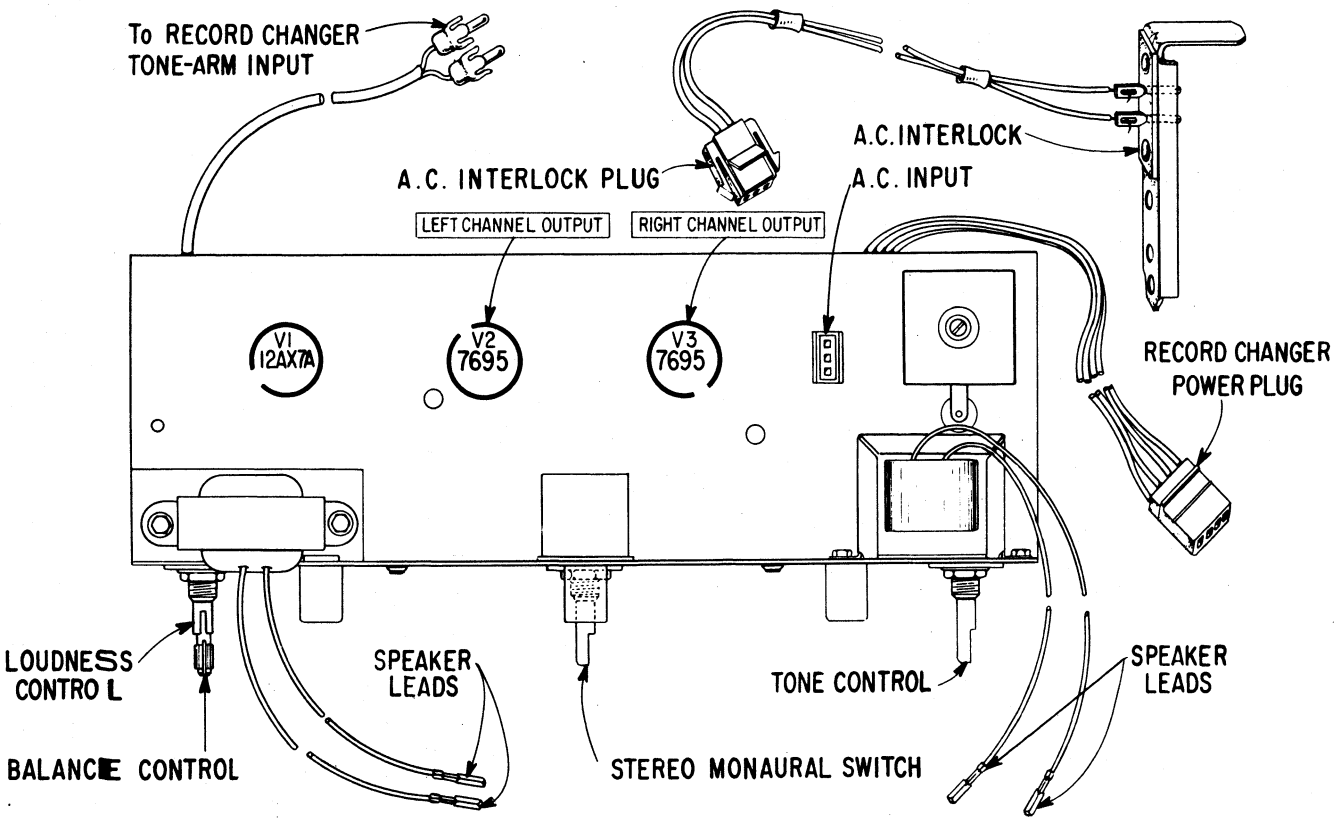
**SCHEMATIC FOR KPS80**



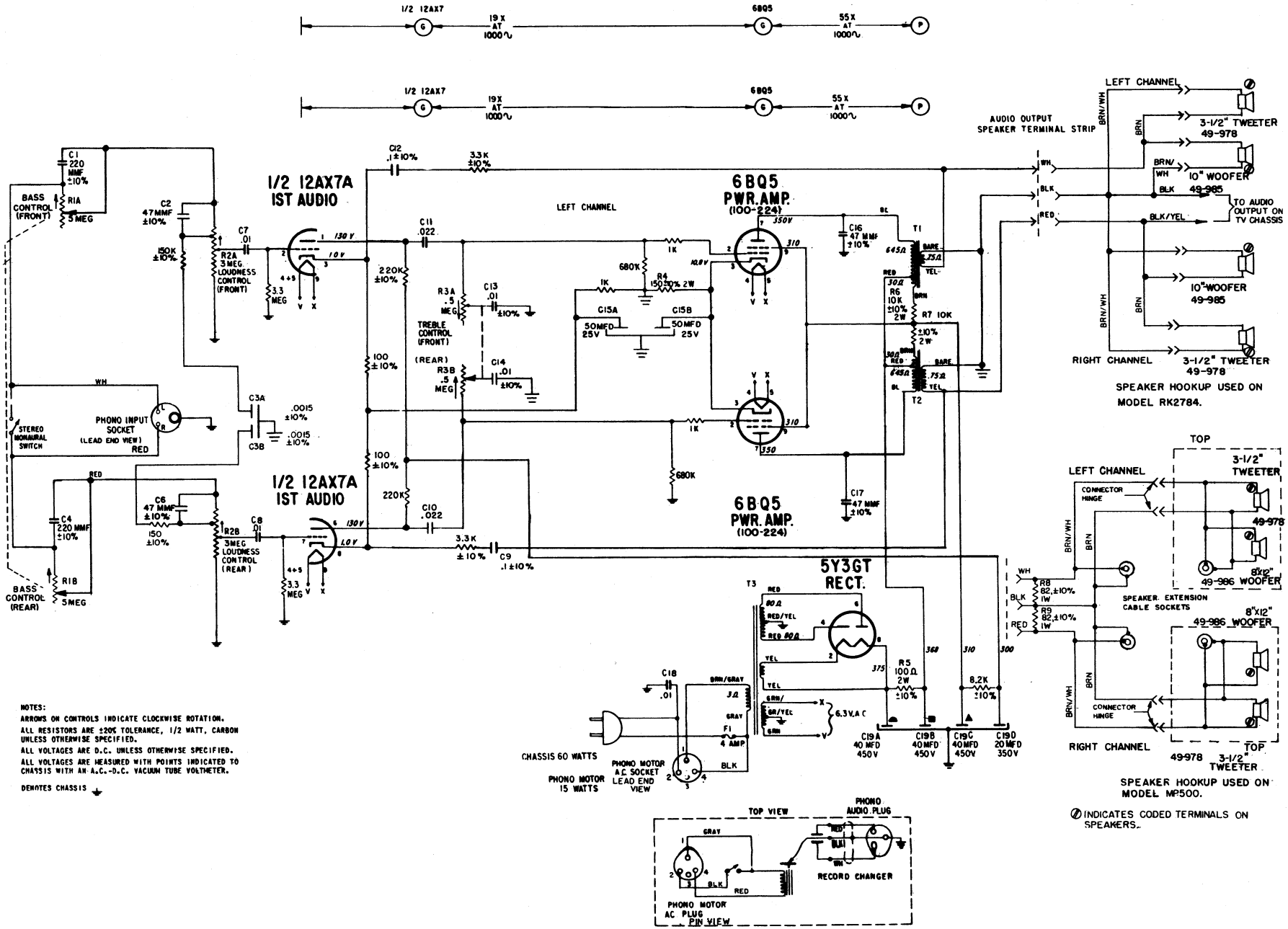

**TUBE LAYOUT FOR KPS80**



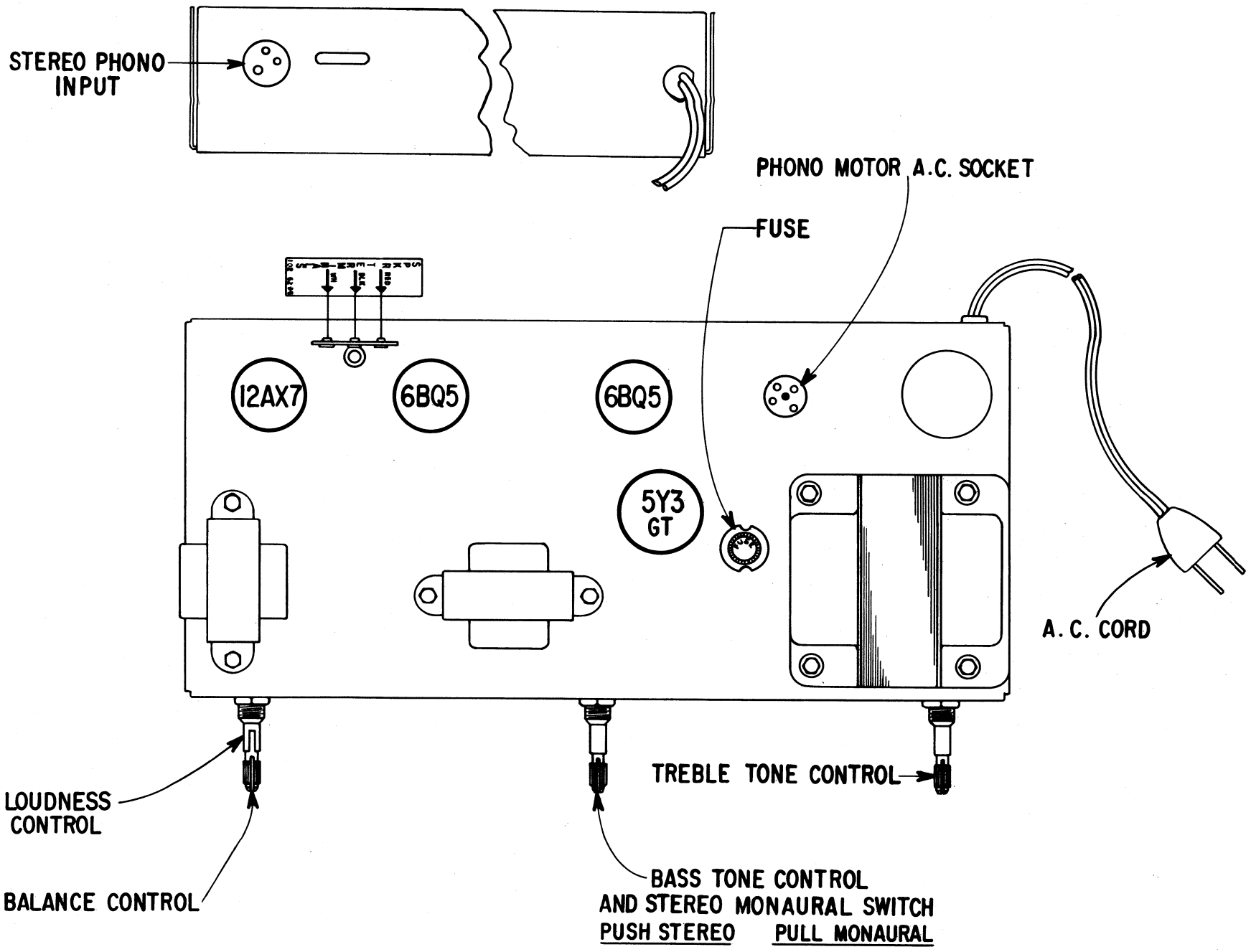

**3K01Z & 3K01Z1 SCHEMATIC FOR MODELS SP400WT, MP400W, ST1950T1, MT1950-1, ST1954T, MT1954, ST1958T, MT1958T, SK2450T, SK2500T, MK2600, RKA2600, SK2501T-2, MK2601-2**



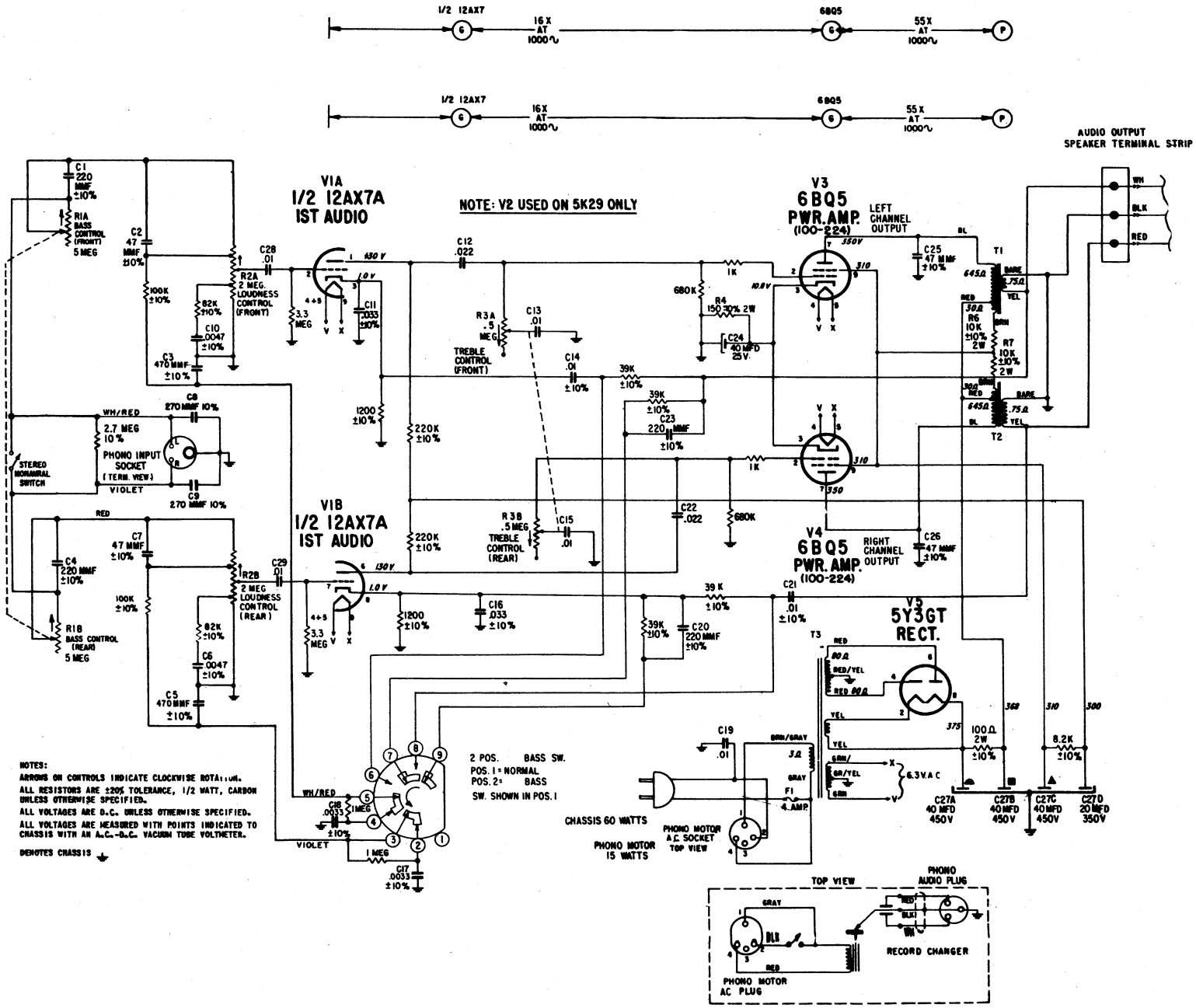

**3K01Z & 3K01Z1 TUBE LAYOUT FOR MODELS SP400WT, MP400W, ST1950T1, MT1950-1, ST1954T, MT1954, ST1958T, MT1958T, SK2450T, SK2500T, MK2600, RKA2600, SK2501T-2, MK2601-2**



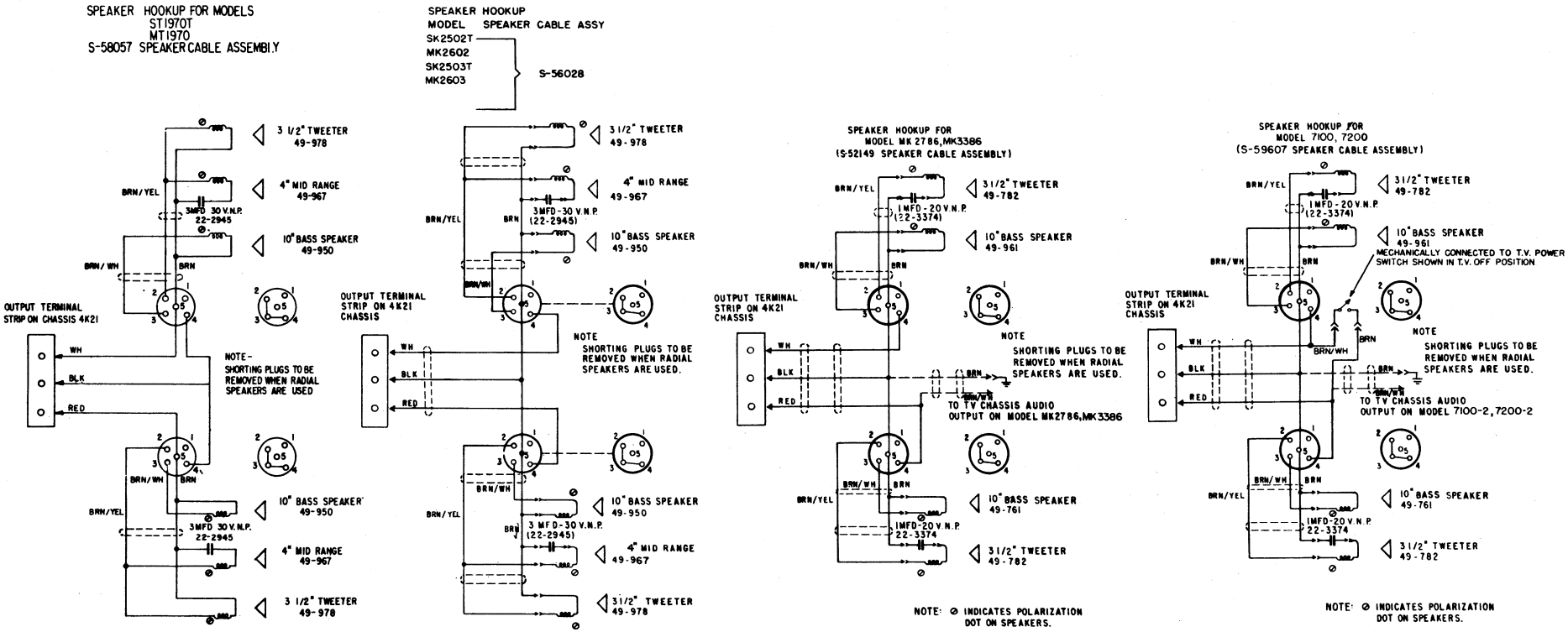

## 4K22 SCHEMATIC FOR MODELS MP500, RK2785-2 and MK2785-2



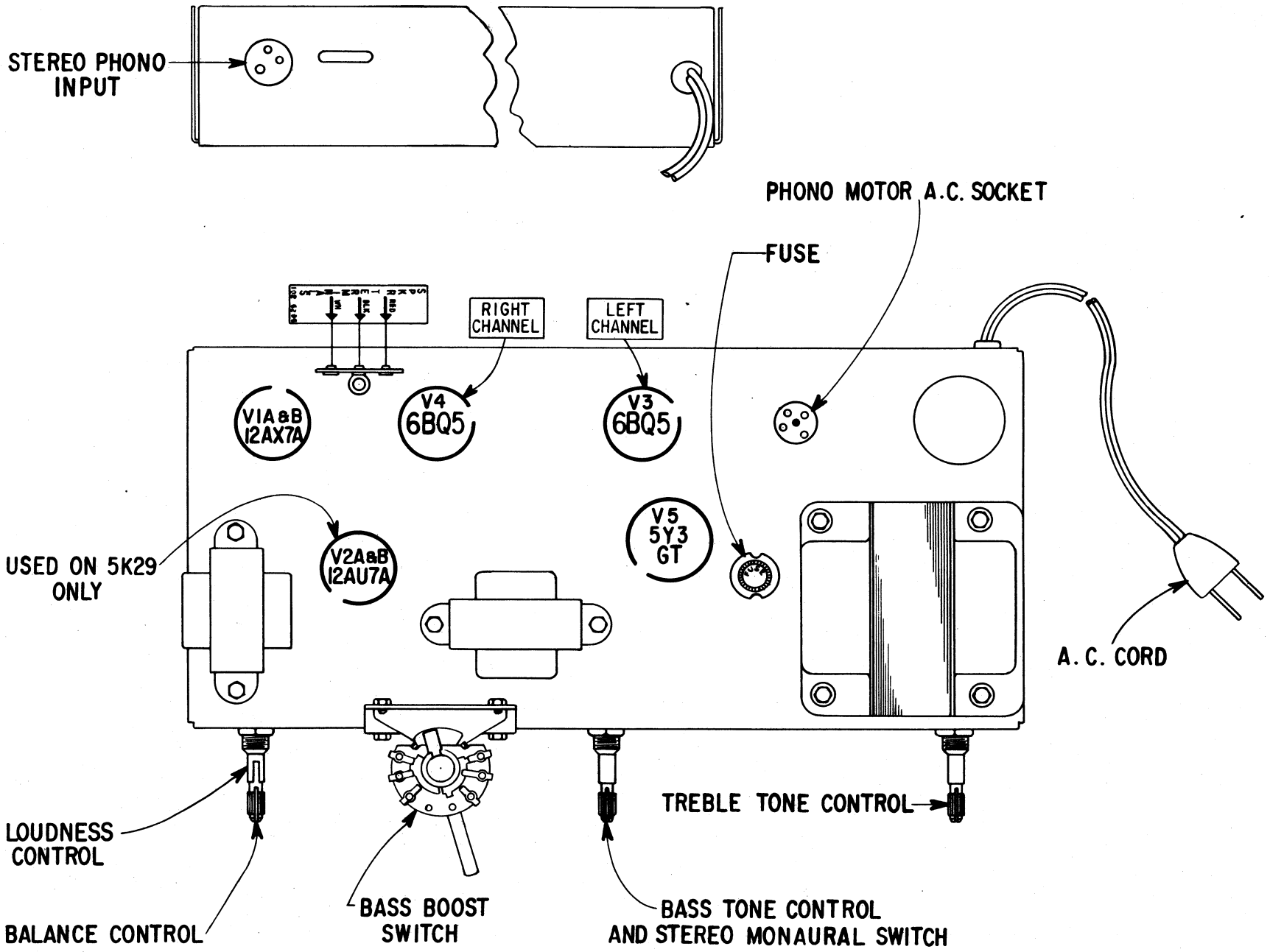

4K22 TUBE LAYOUT FOR MODELS MP500, RK2785-2 and MK2785-2



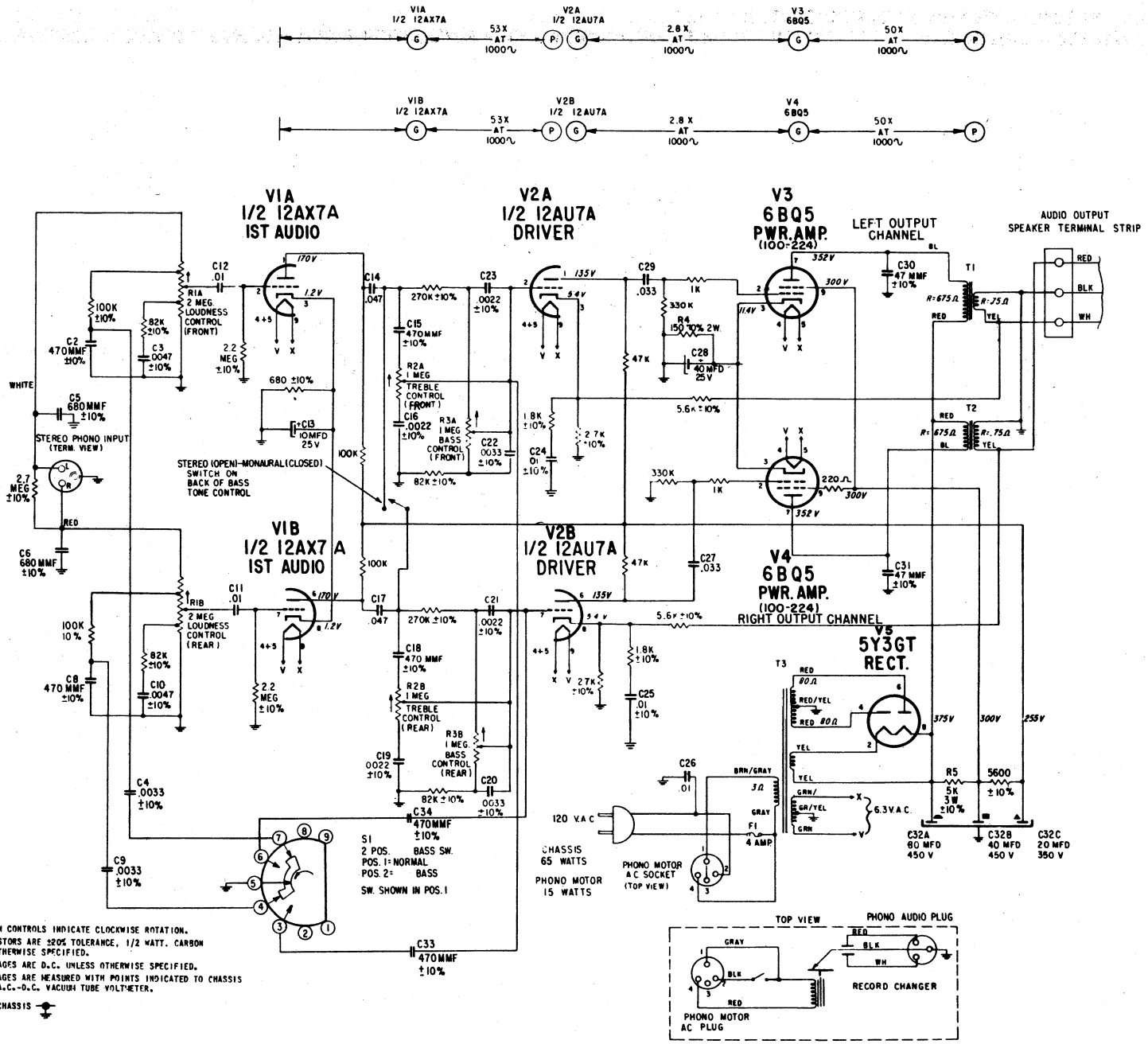

4K21 SCHEMATIC FOR MODELS ST1970T, MT1970, SK2502T, MK2602, SK2503T, MK2603, MK2786-2, 7100 and 7200




**4K21 SPEAKER SCHEMATICS FOR MODELS ST1970T, MT1970, SK2502T, MK2602, SK2503T, MK2603, MK2786-2, 7100 and 7200**



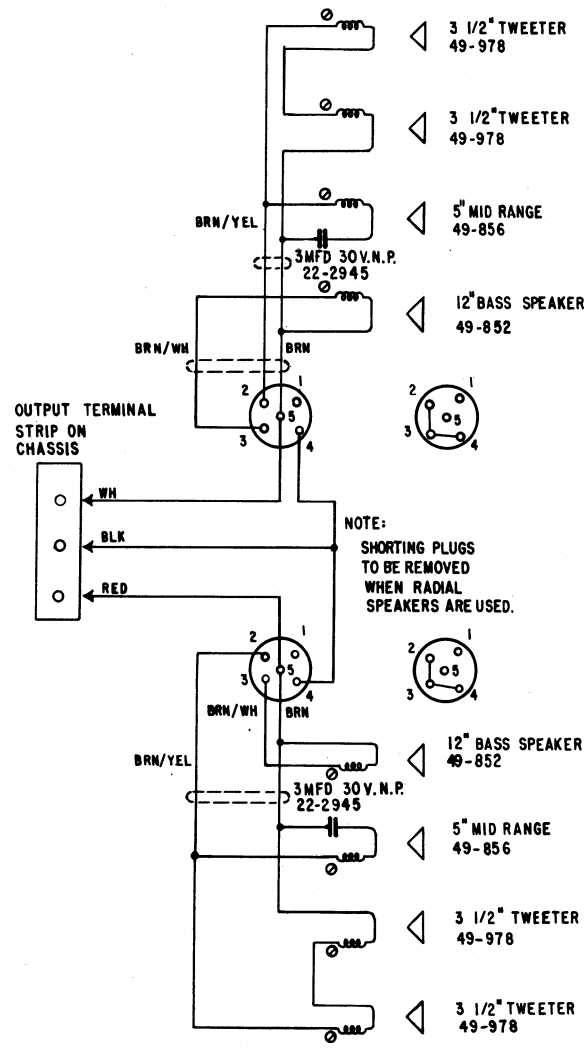

4K21 & 5K29 TUBE LAYOUT FORMODELS ST1970T, MT1970, SK2502T, MK2602, SK2503T, MK2603, MK2786-2, 7100, 7200 SK2506T, MK2606, and MK2608




**5K29 SCHEMATIC FOR MODELS SK2506T, MK2606, AND MK2608**

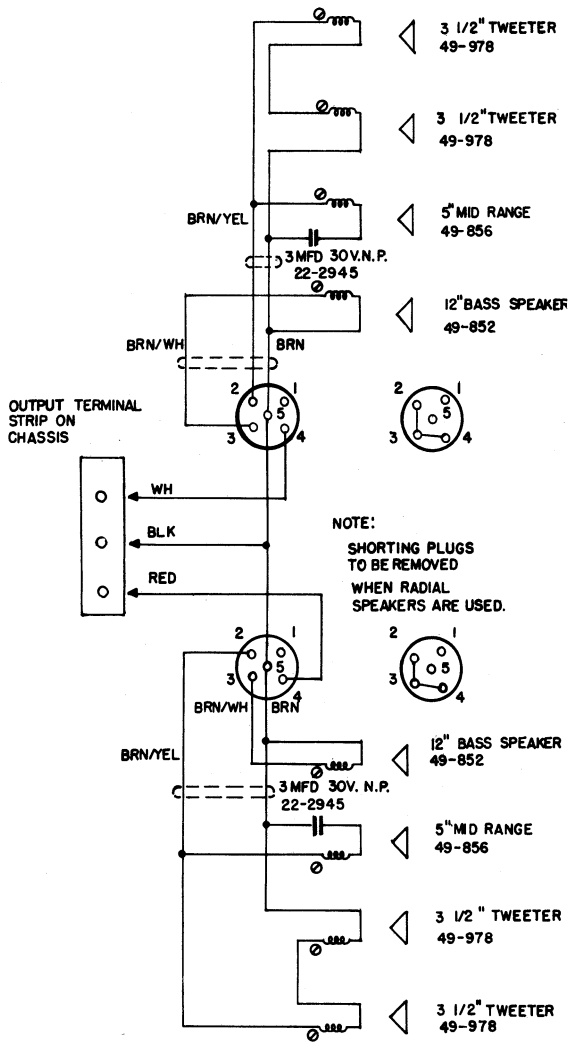
SPEAKER HOOKUP FOR
MODELS SK2508T, MK2607, MK2608

(S56029 SPEAKER CABLE ASSEMBLY)




SPEAKER HOOKUP FOR
MODELS SK2506T, MK2606

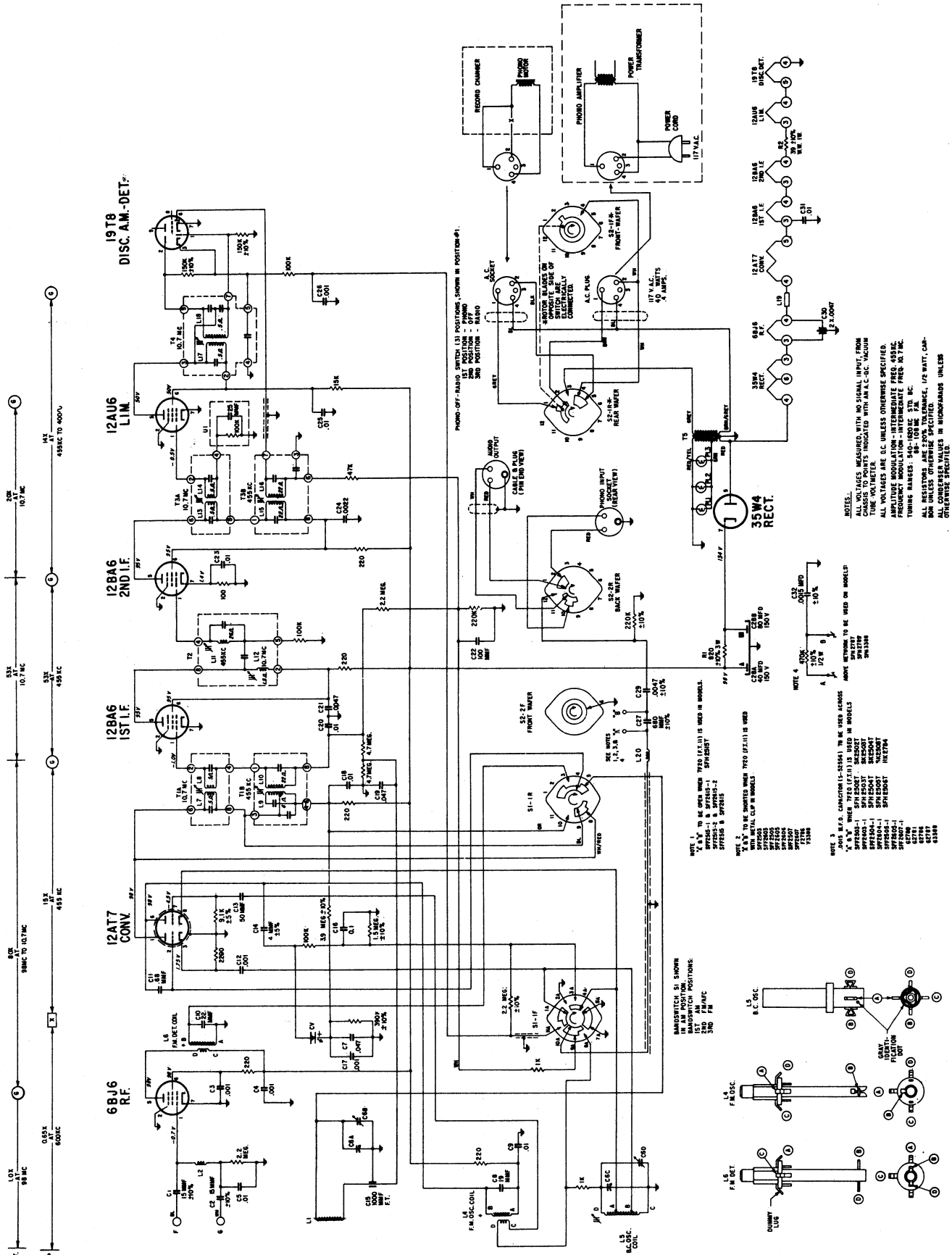
(S56055 SPEAKER CABLE ASSEMBLY)



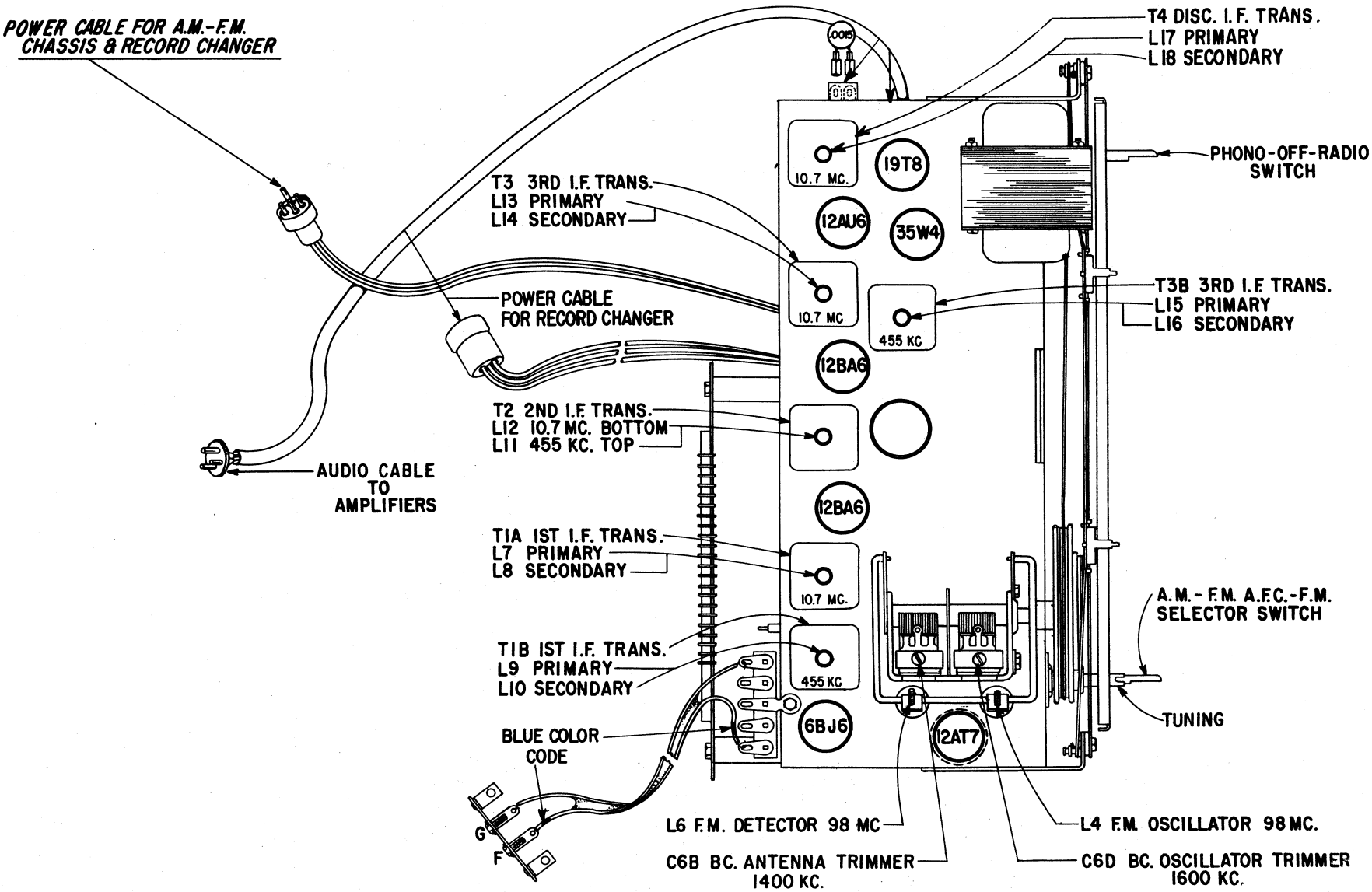

NOTE:

⊘ INDICATES POLARITY CODE SPOTS ON SPEAKERS.

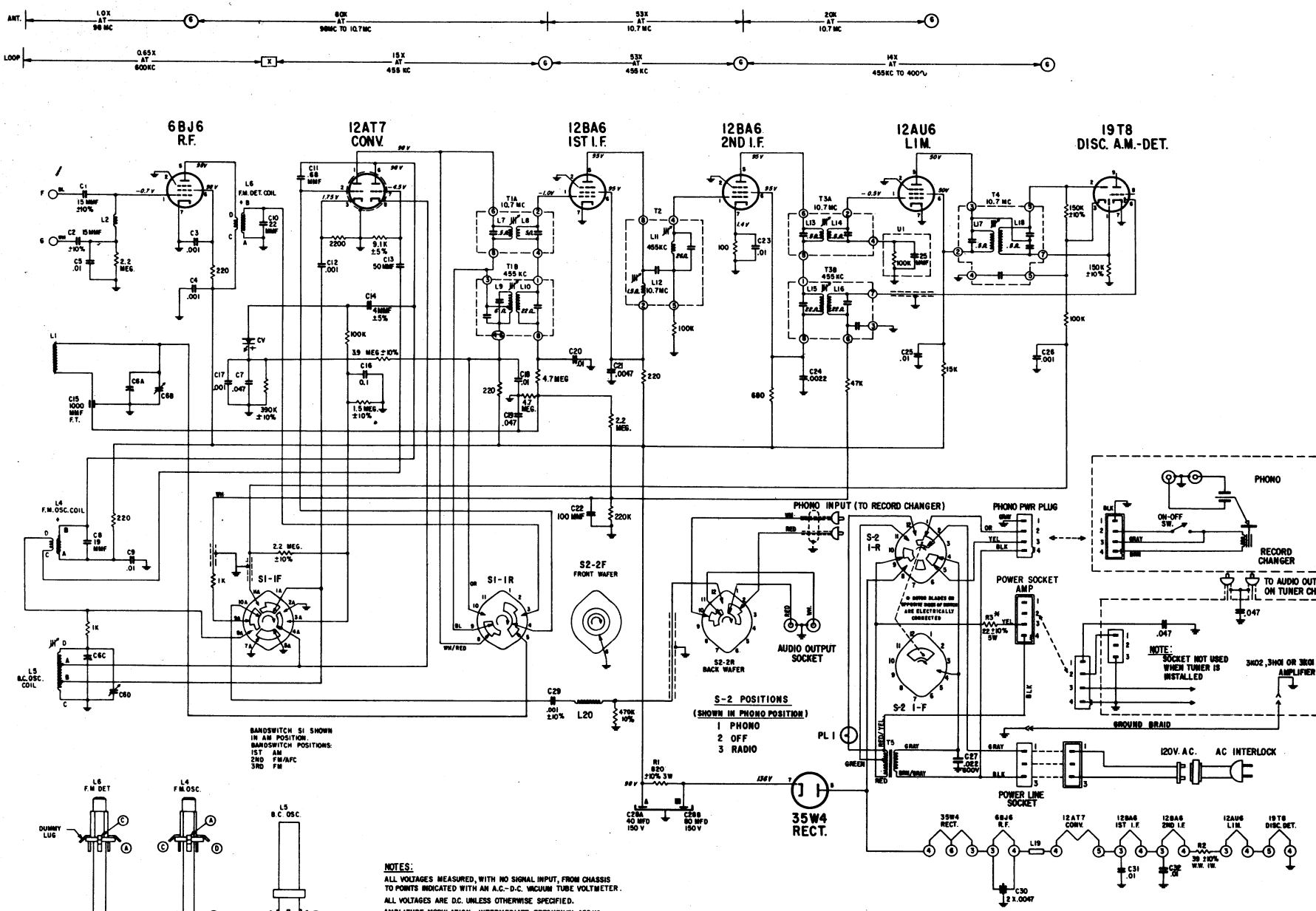
**5K29 SPEAKER SCHEMATICS FOR MODELS SK2506T, MK2606, and MK2608**




## 7F20L SCHEMATIC FOR MODEL RK2785-2




7F20L TUBE & TRIMMER LAYOUT FORMODEL RK2785-2




NOTES:

ALL VOLTAGES MEASURED, WITH NO SIGNAL INPUT, FROM CHASSIS TO POINTS INDICATED WITH AN A.C.-D.C. VACUUM TUBE VOLTMETER.

ALL VOLTAGES ARE D.C. UNLESS OTHERWISE SPECIFIED.

AMPLITUDE MODULATION – INTERMEDIATE FREQUENCY 455 KC.
FREQUENCY MODULATION – INTERMEDIATE FREQUENCY 10.7 MC.

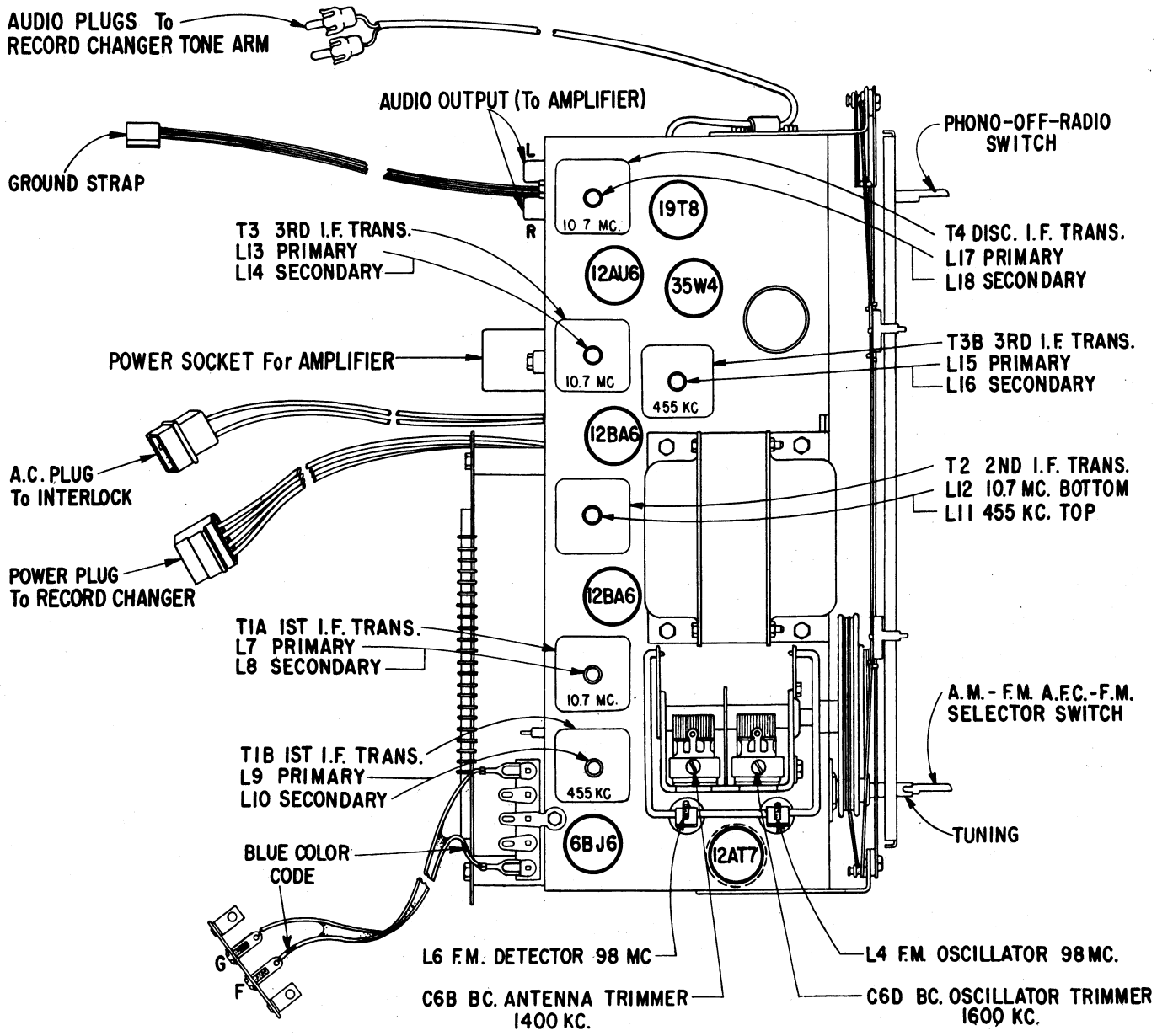
TUNING RANGES: 540 – 1620 KC STD BC.
88 – 108 MC F.M.

ALL RESISTORS ARE ±20% TOLERANCE, 1/2 WATT, CARBON UNLESS OTHERWISE SPECIFIED.

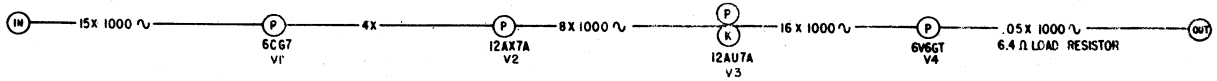
ALL CONDENSERS VALUES IN MICROFARADS UNLESS OTHERWISE SPECIFIED.

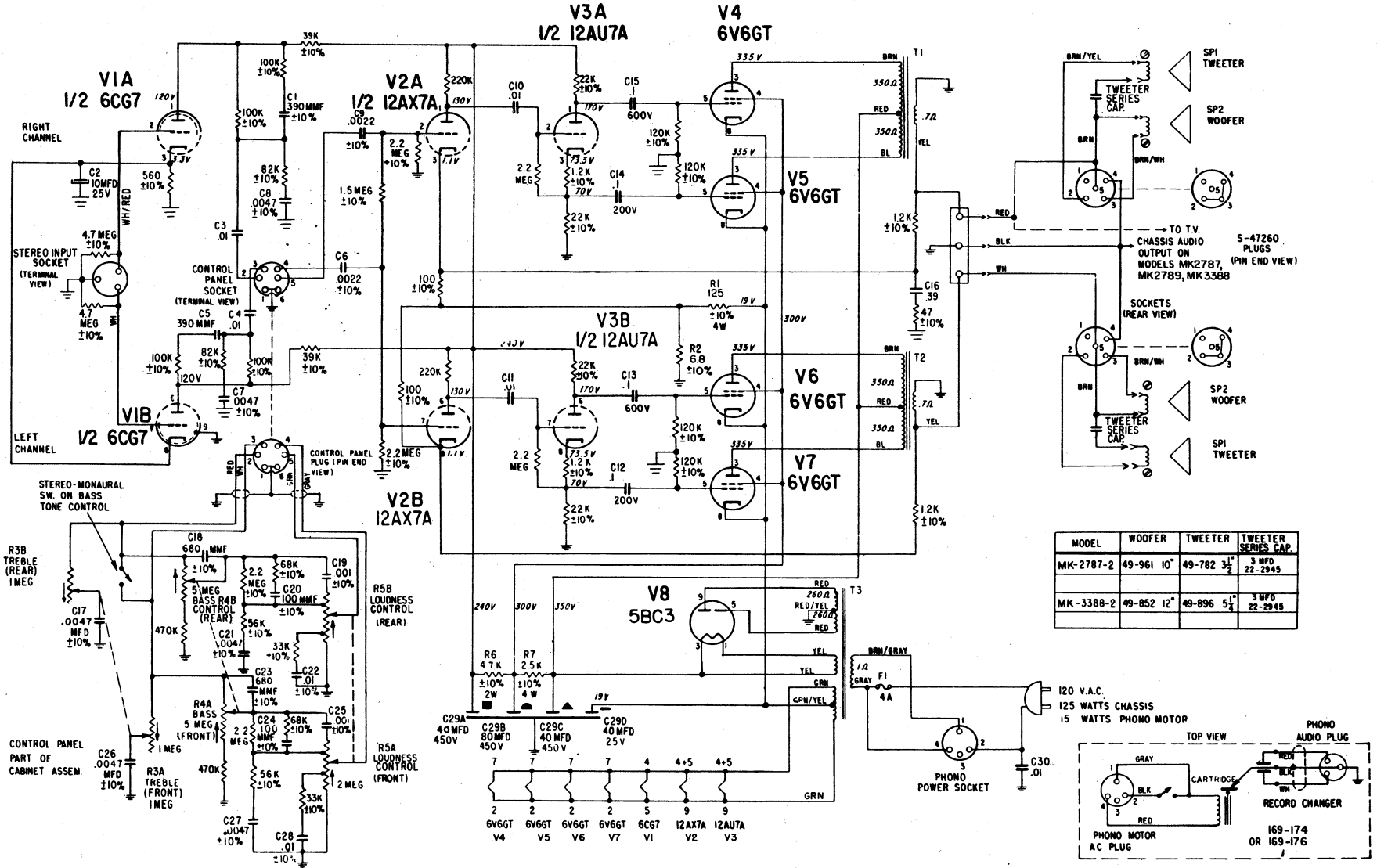
DENOTES CHASSIS ⏚

## 7K21 SCHEMATIC FOR MODEL RKA2600



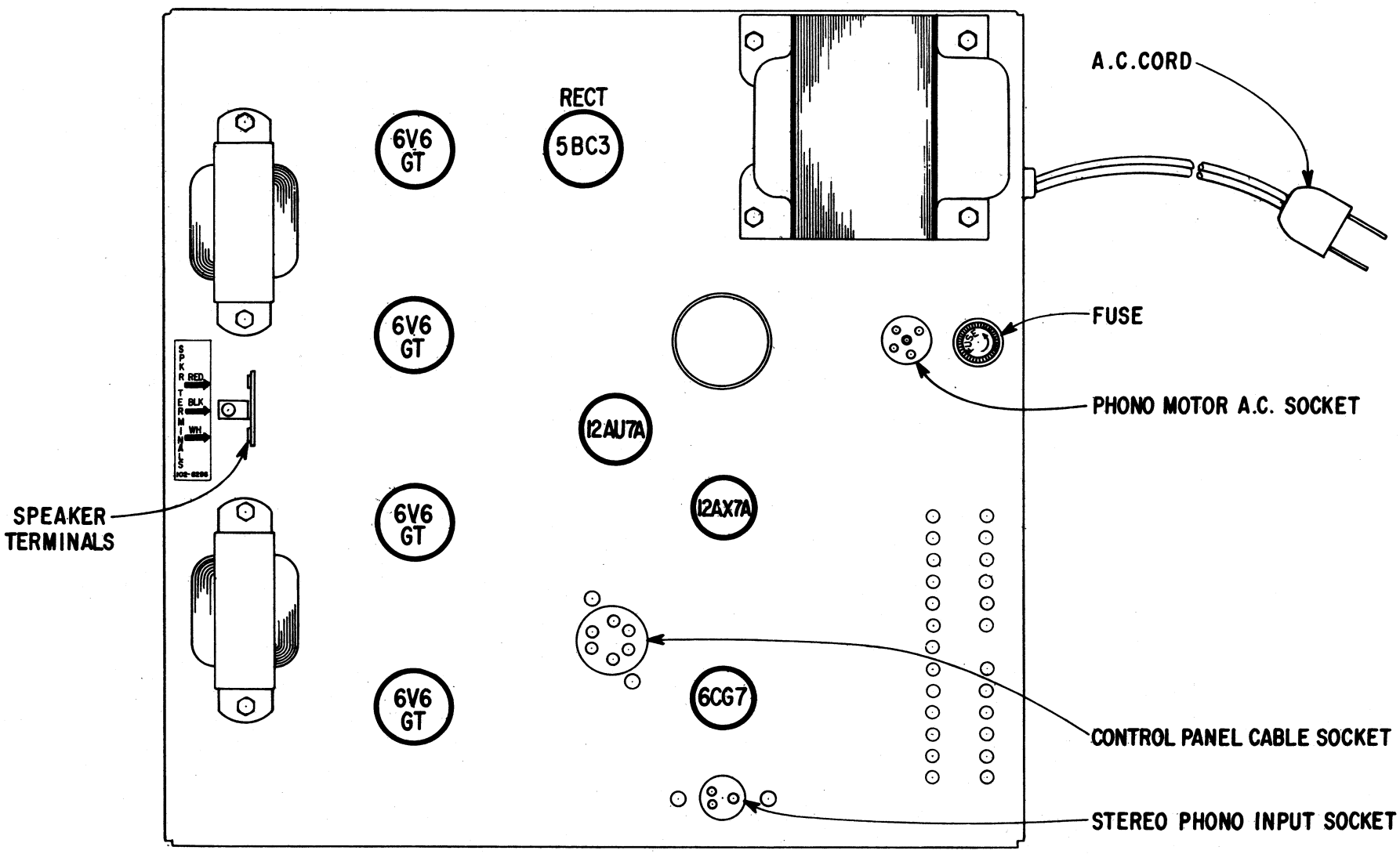

7K21 TUBE & TRIMMER LAYOUT FOR MODEL RKA2600



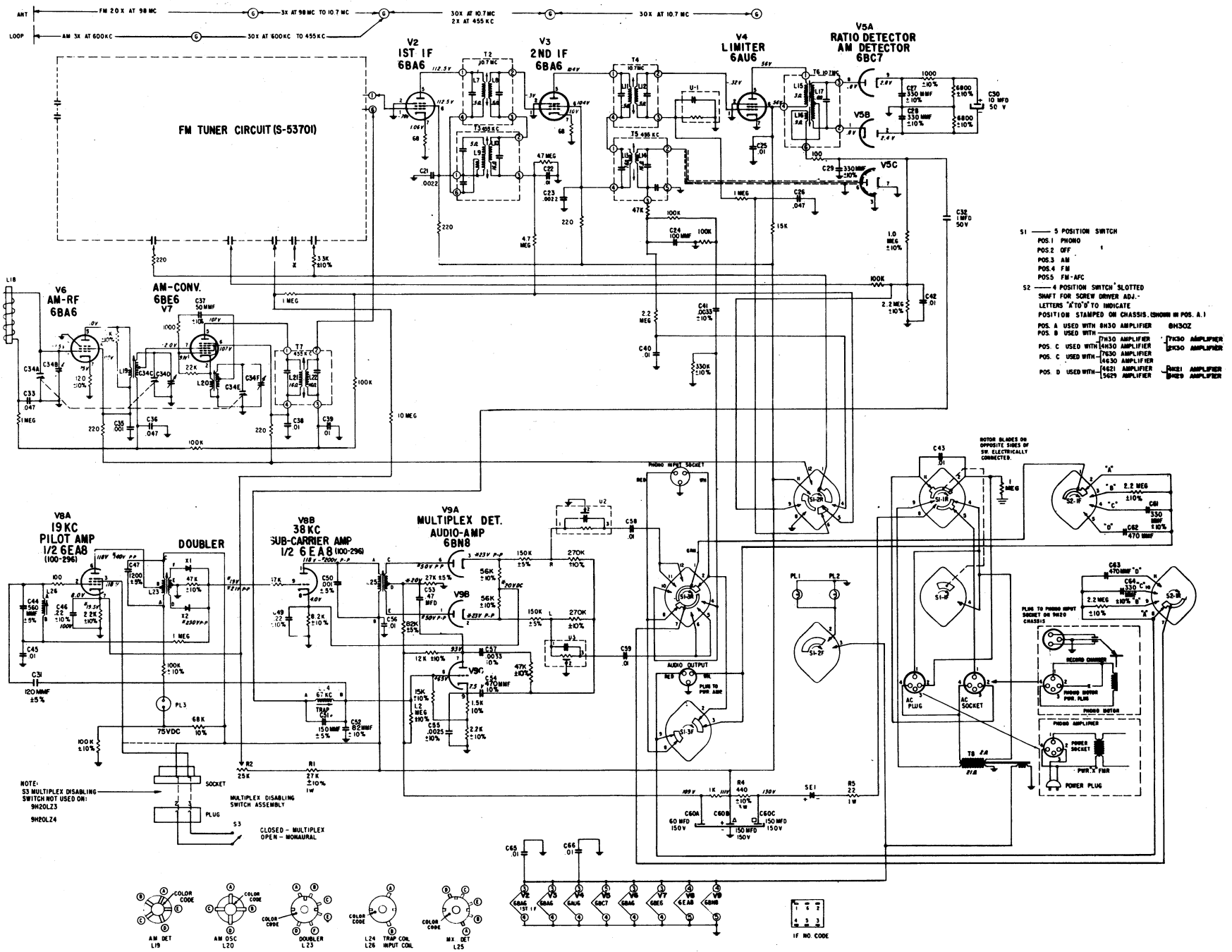




| MODEL | WOOFER | TWEETER | TWEETER SERIES CAP. |
|---|---|---|---|
| MK-2787-2 | 49-961 10" | 49-782 3½" | 3 MFD 22-2945 |
| MK-3388-2 | 49-852 12" | 49-896 5¼" | 3 MFD 22-2945 |

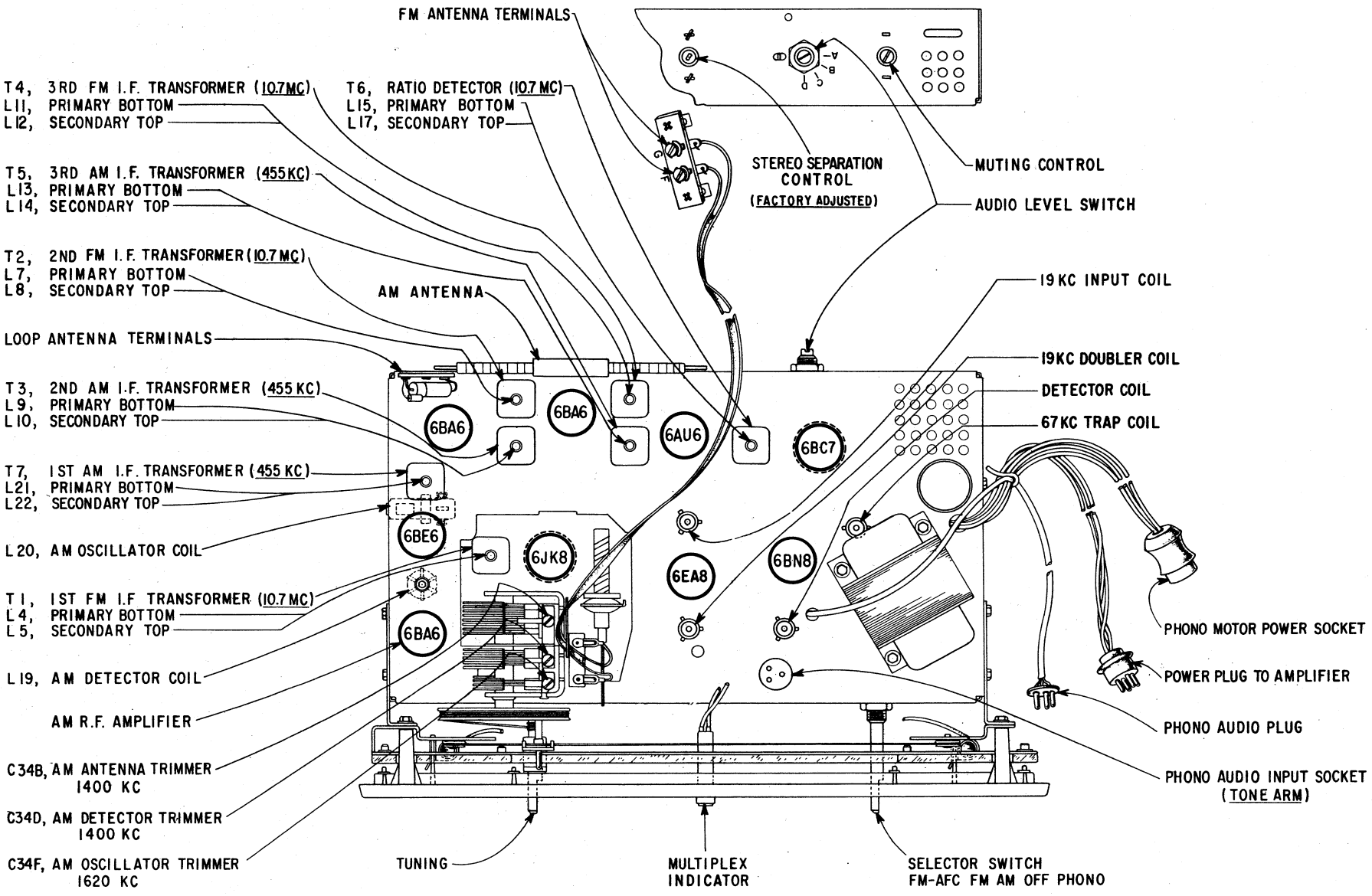
**8K30 SCHEMATIC FOR MODELS MK2787-2 and MK3388-2**



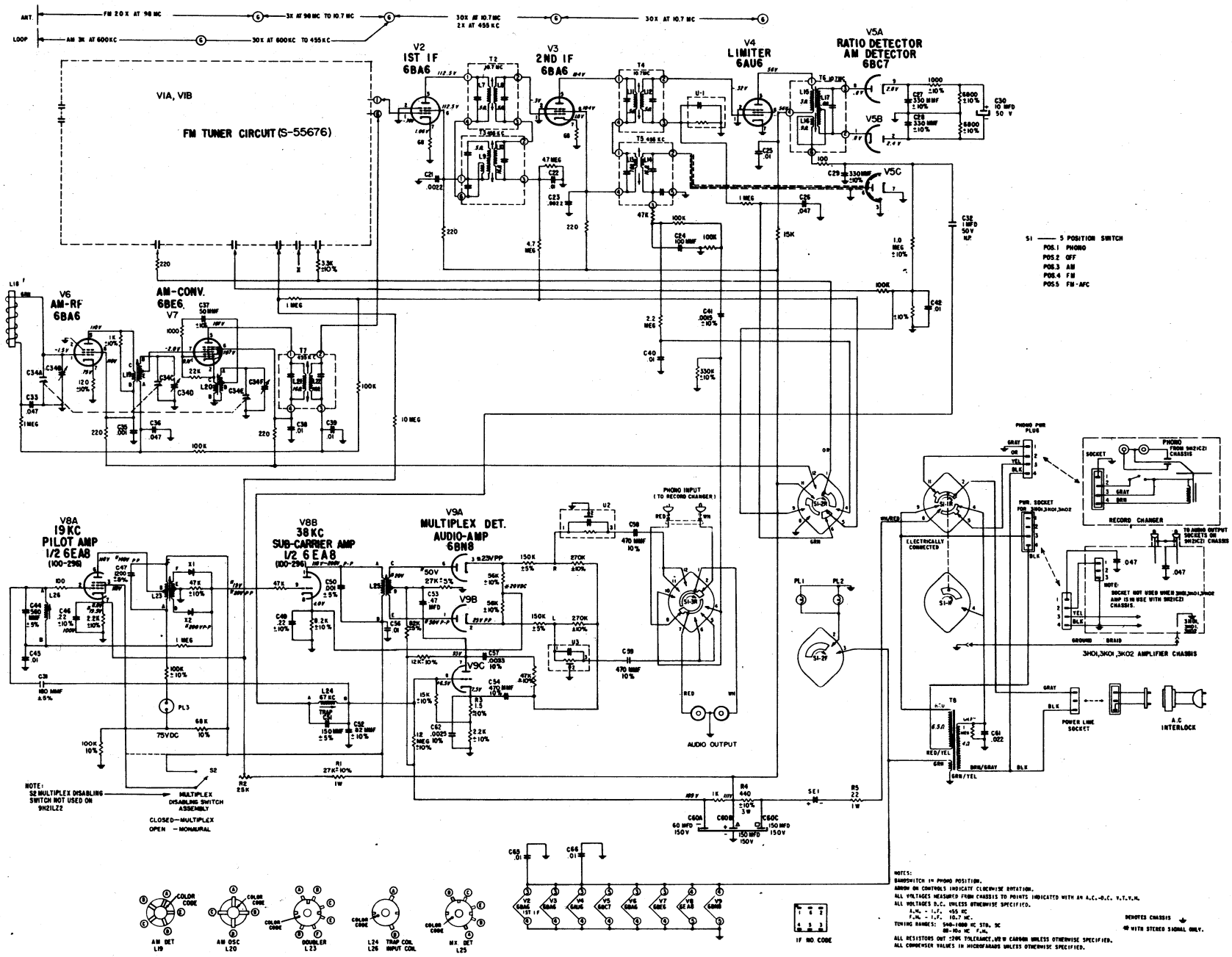

8K30 TUBE LAYOUT FOR MODELS MK2787, MK2789& MK3388



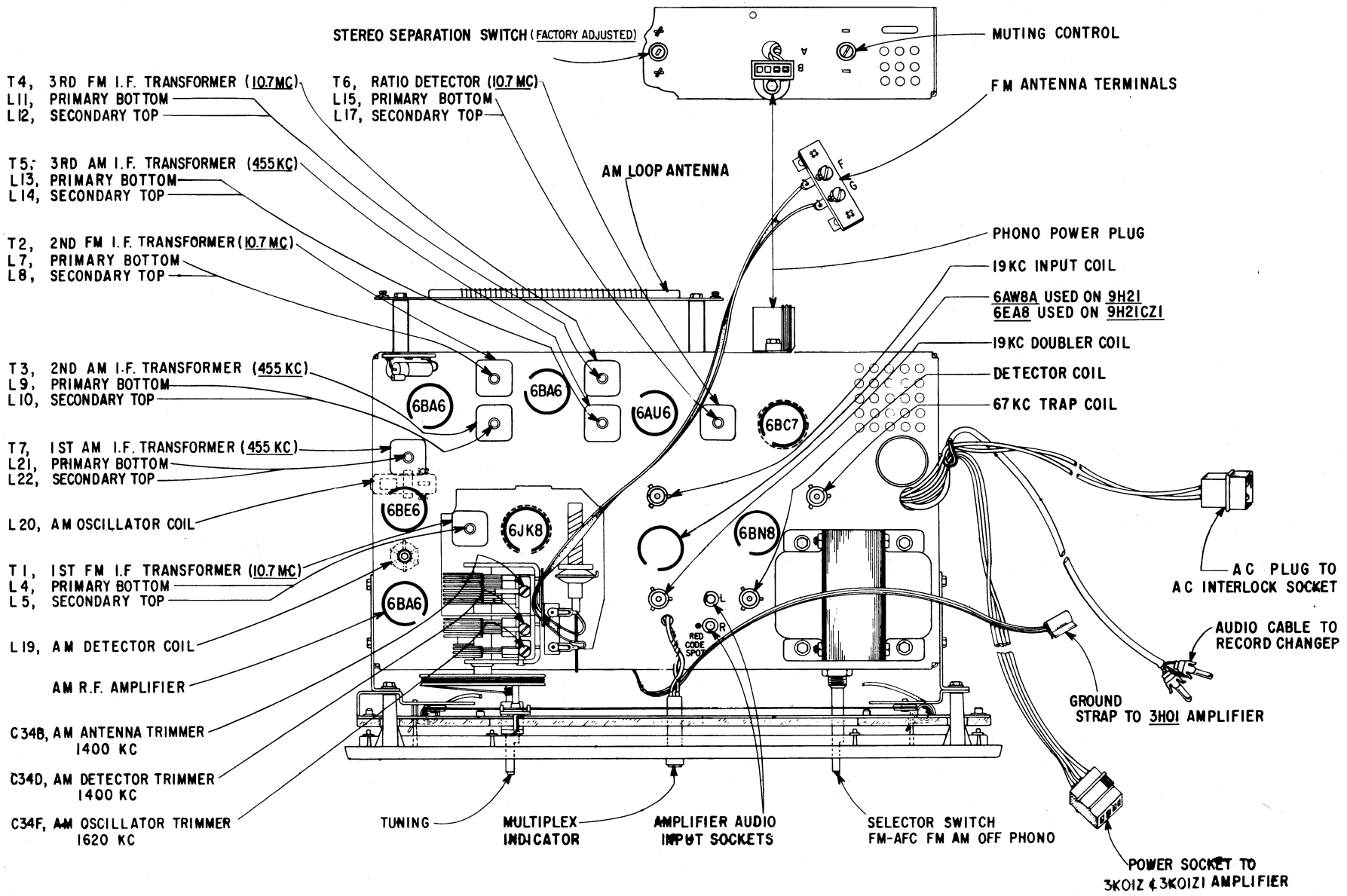

**9H20LZ3 & 9H20LZ4 SCHEMATIC FOR MODELS MP500, MP505, MT1970, MK2602, MK2603, MK2606, MK2608, MK2785-2 MK2786-2, MK2787-2, MK3388-2, 7100 and 7200**



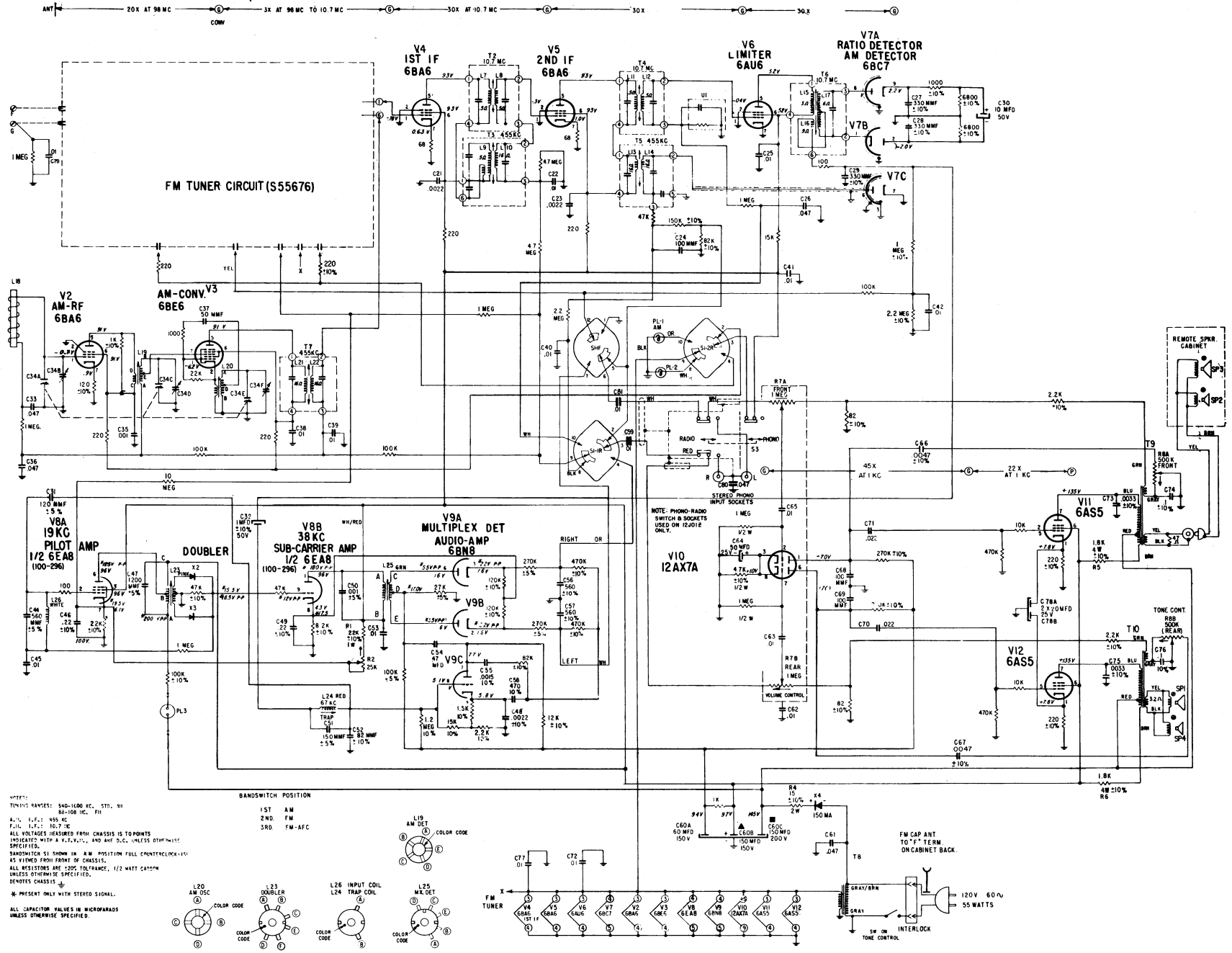

**9H20LZ3 & 9H20LZ4 TUBE TRIMMER LAYOUT FOR MODELS MP500, MP505, MT1970, MK2602, MK2603, MK2606, MK2608, MK2785-2, MK2786-2, MK2787-2, MK3388-2, 7100 and 7200**



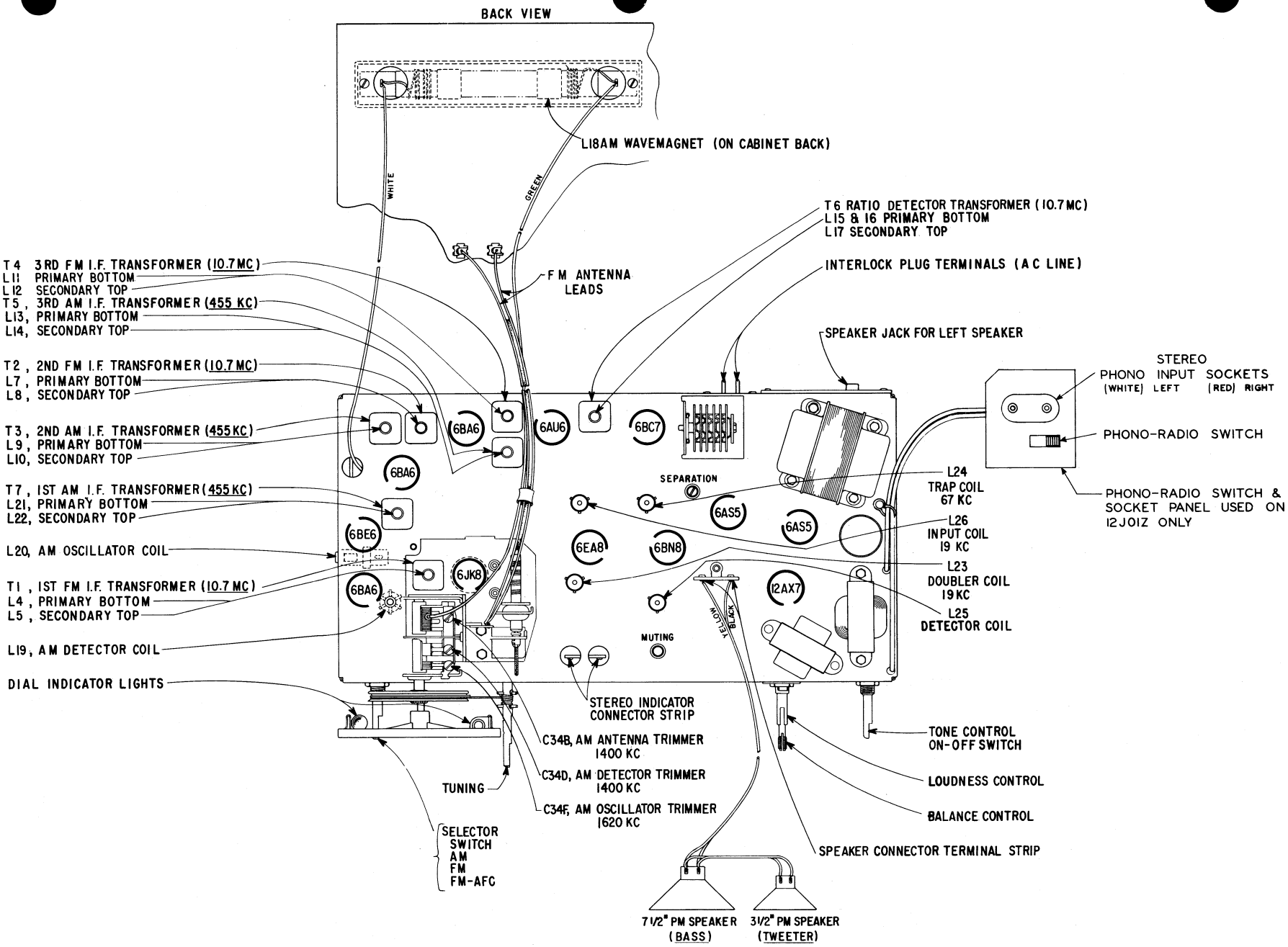

## 9H21LZ2 SCHEMATIC FOR MODELS MP400, MT1950-1, MT1954, MT1958, MK2450, MK2600 and MK2601-2



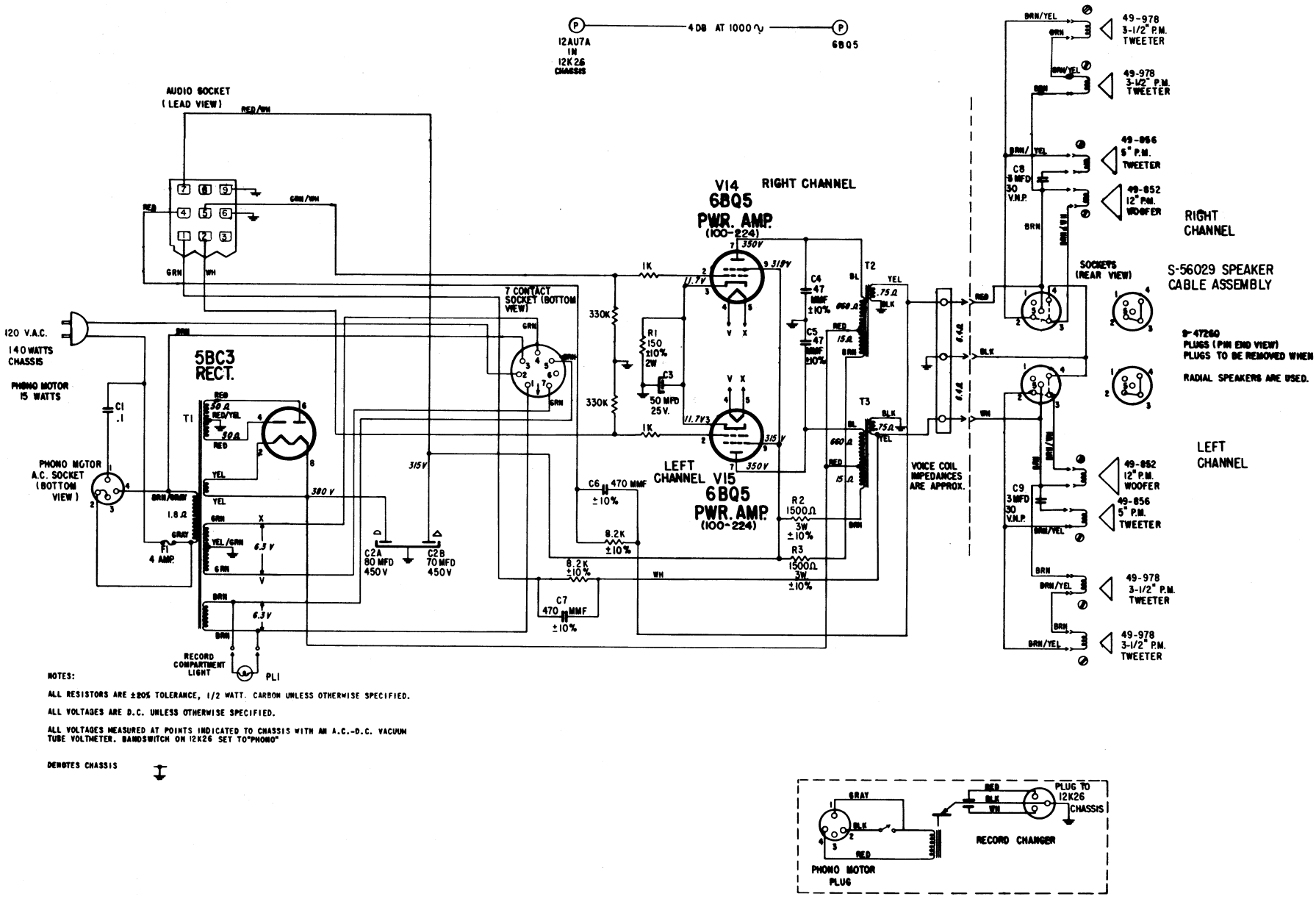

**9H21LZ2 TUBE & TRIMMER LAYOUT FOR MODELS MP400, MT1950-1, MT1954, MT1958, MK2450, MK2600 and MK2601-2**




## 12J01–12J01Z SCHEMATIC FOR MODEL MJ1035




12J01—12J01Z TUBE & TRIMMER LAYOUT FOR MODEL MJ1035




NOTES:

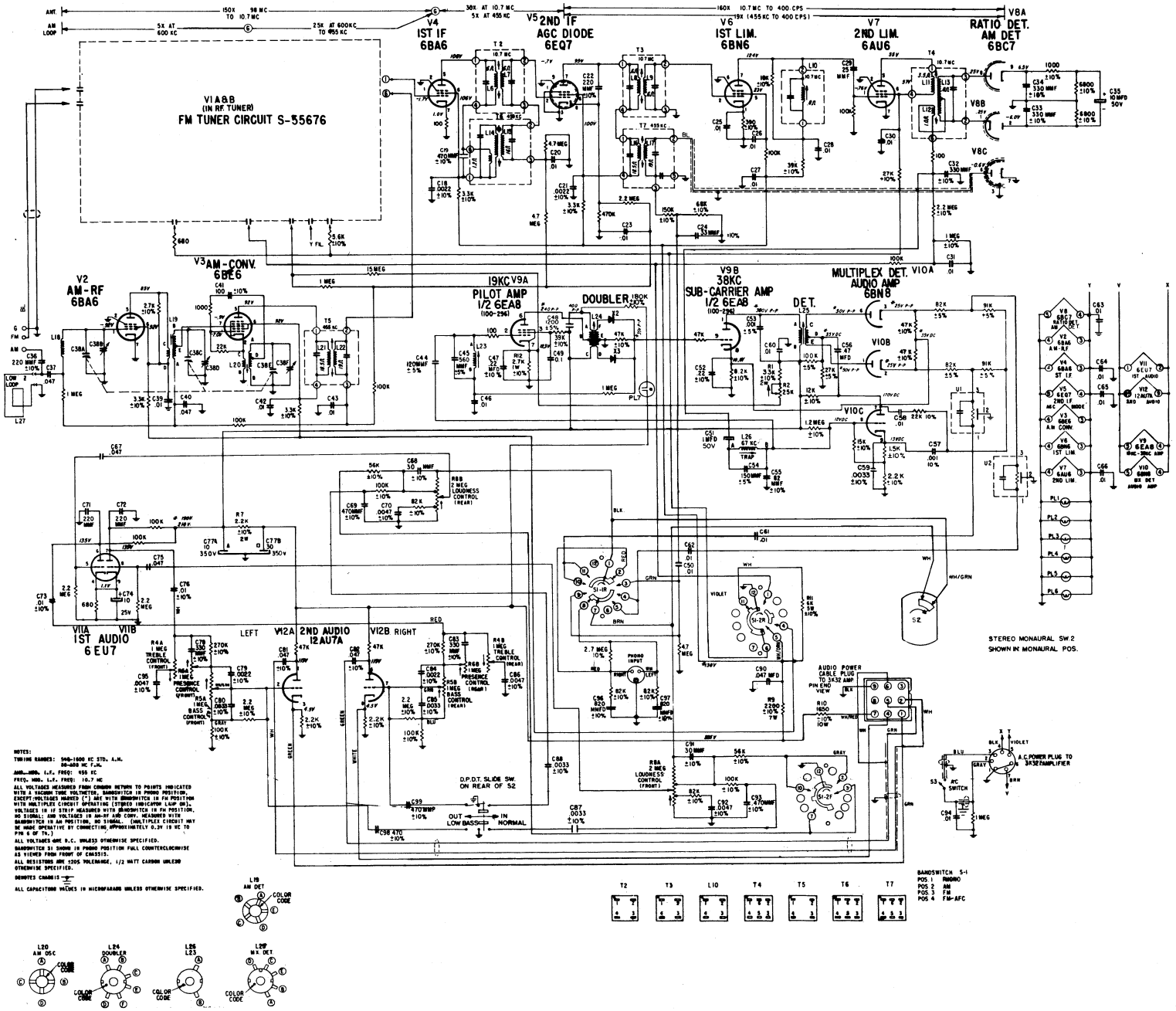
ALL RESISTORS ARE ±20% TOLERANCE, 1/2 WATT. CARBON UNLESS OTHERWISE SPECIFIED.

ALL VOLTAGES ARE D.C. UNLESS OTHERWISE SPECIFIED.

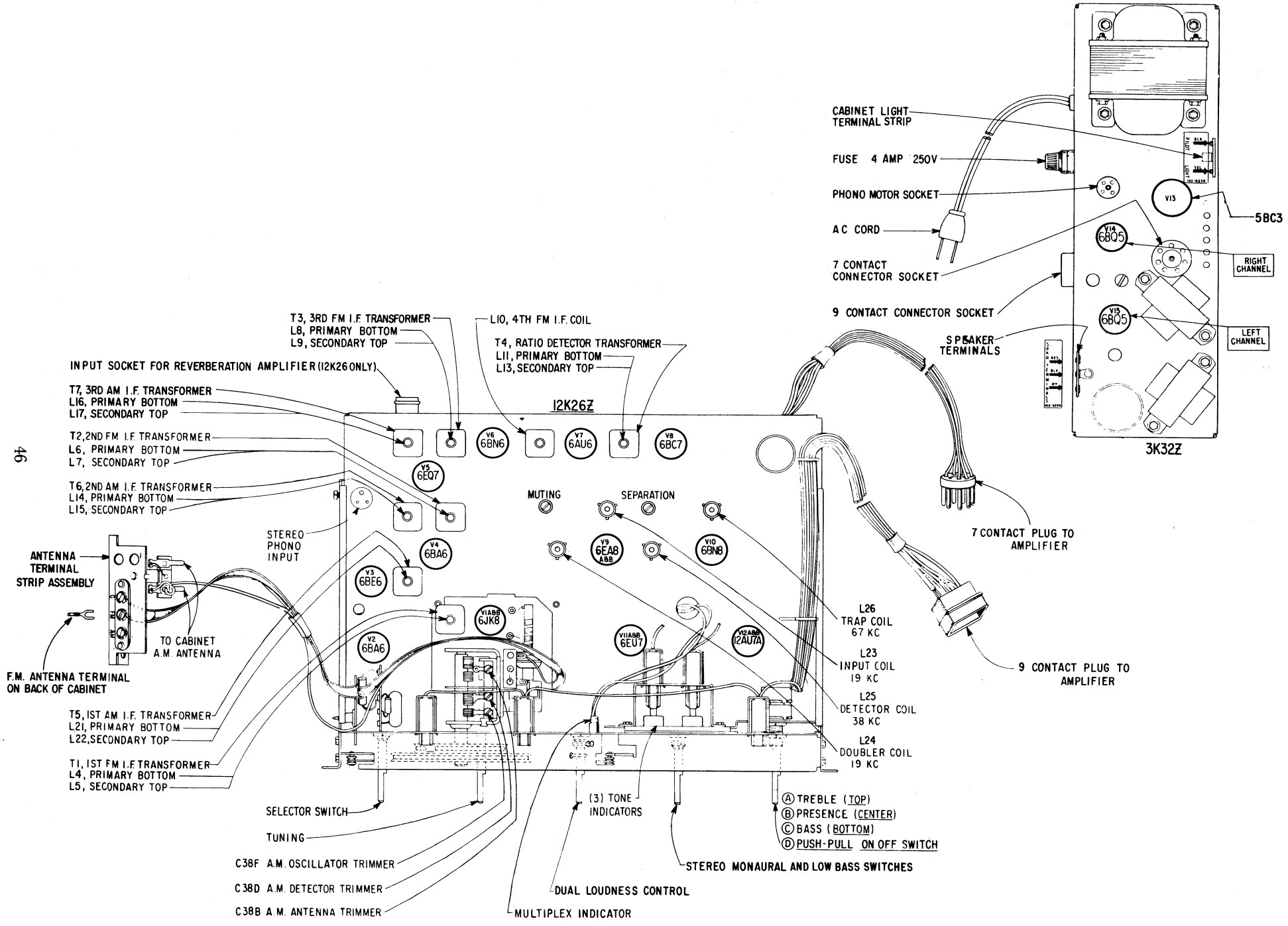
ALL VOLTAGES MEASURED AT POINTS INDICATED TO CHASSIS WITH AN A.C.-D.C. VACUUM TUBE VOLTMETER. BANDSWITCH ON 12K26 SET TO "PHONO"

DENOTES CHASSIS

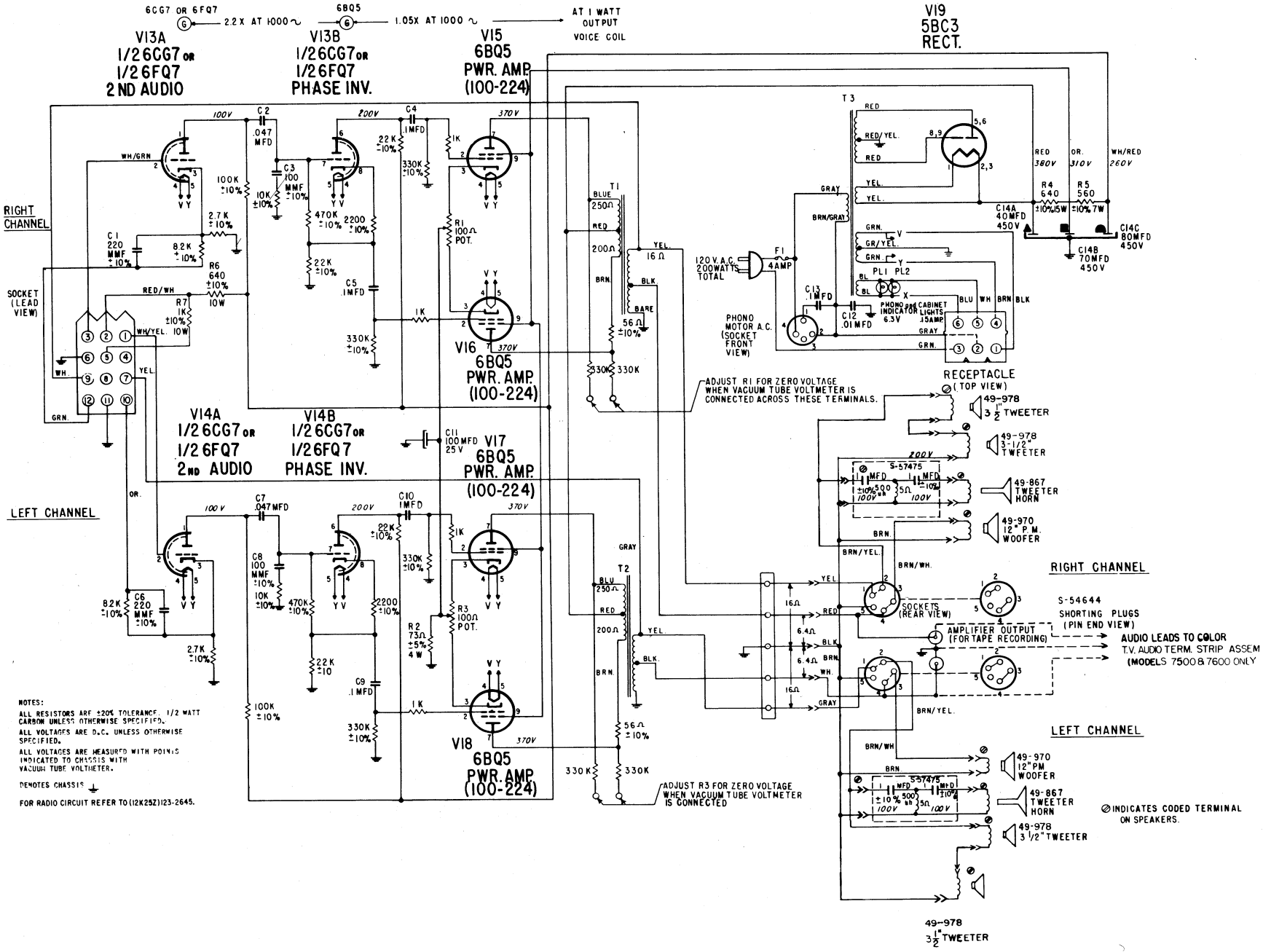
## 3K32Z SCHEMATIC FOR MODEL MK2636



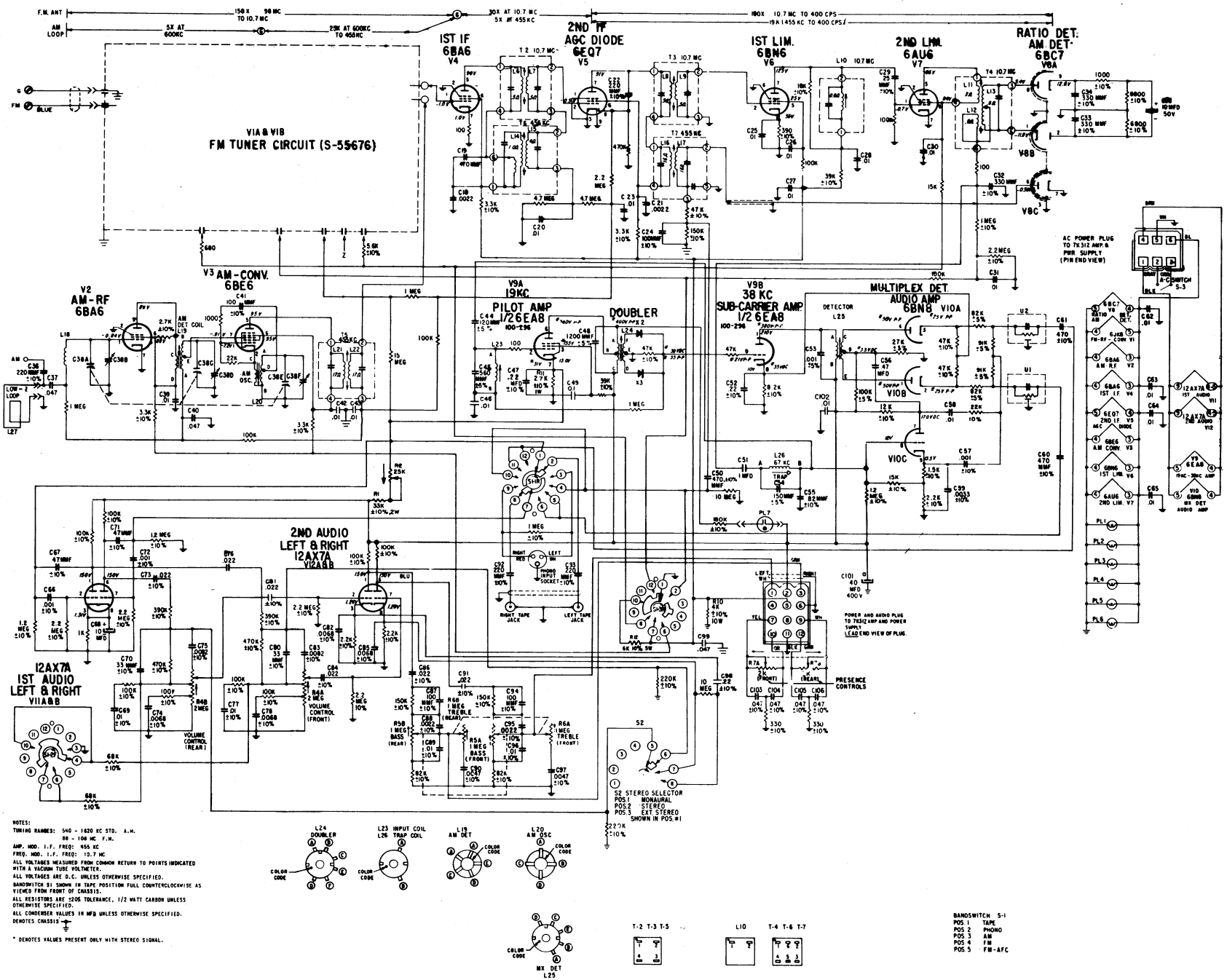

## 12K26Z SCHEMATIC FOR MODEL MK2636



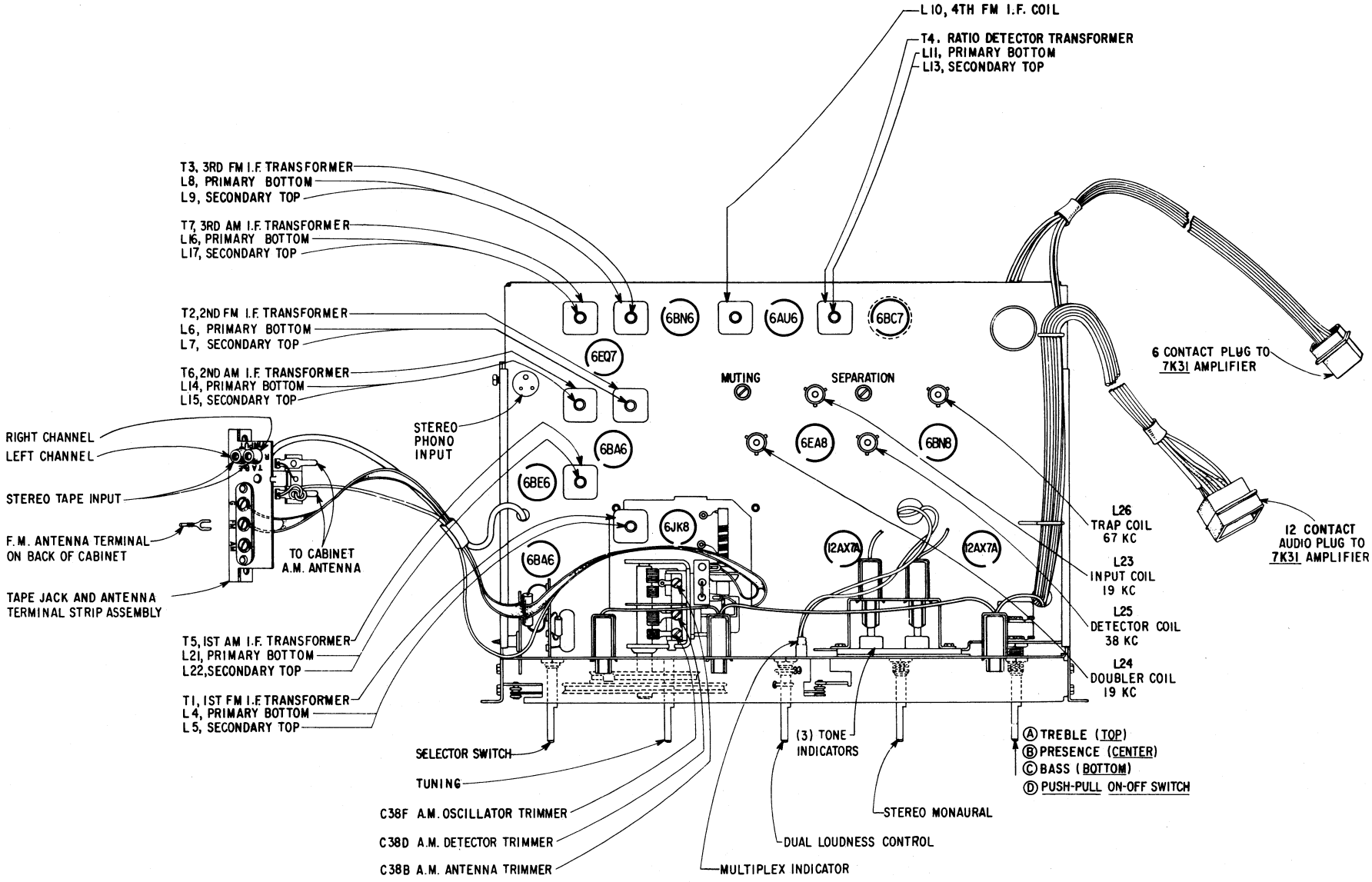

**12K26Z - 3K32Z TUBE & TRIMMER LAYOUT FOR MODEL MK2636**



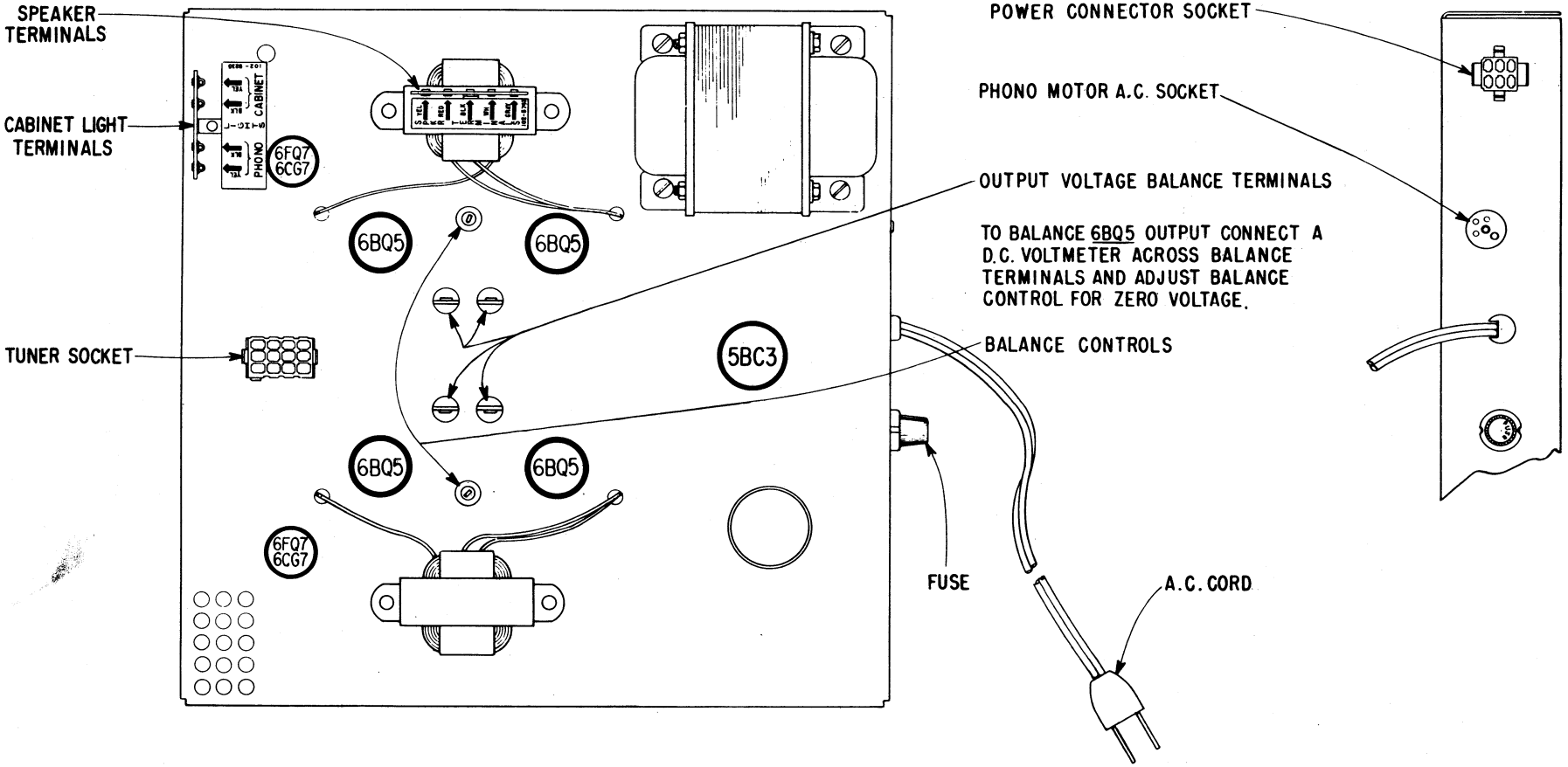

**7K31Z SCHEMATIC FOR MODELS MK2670, MK2675, MK2685, and 7500-2**



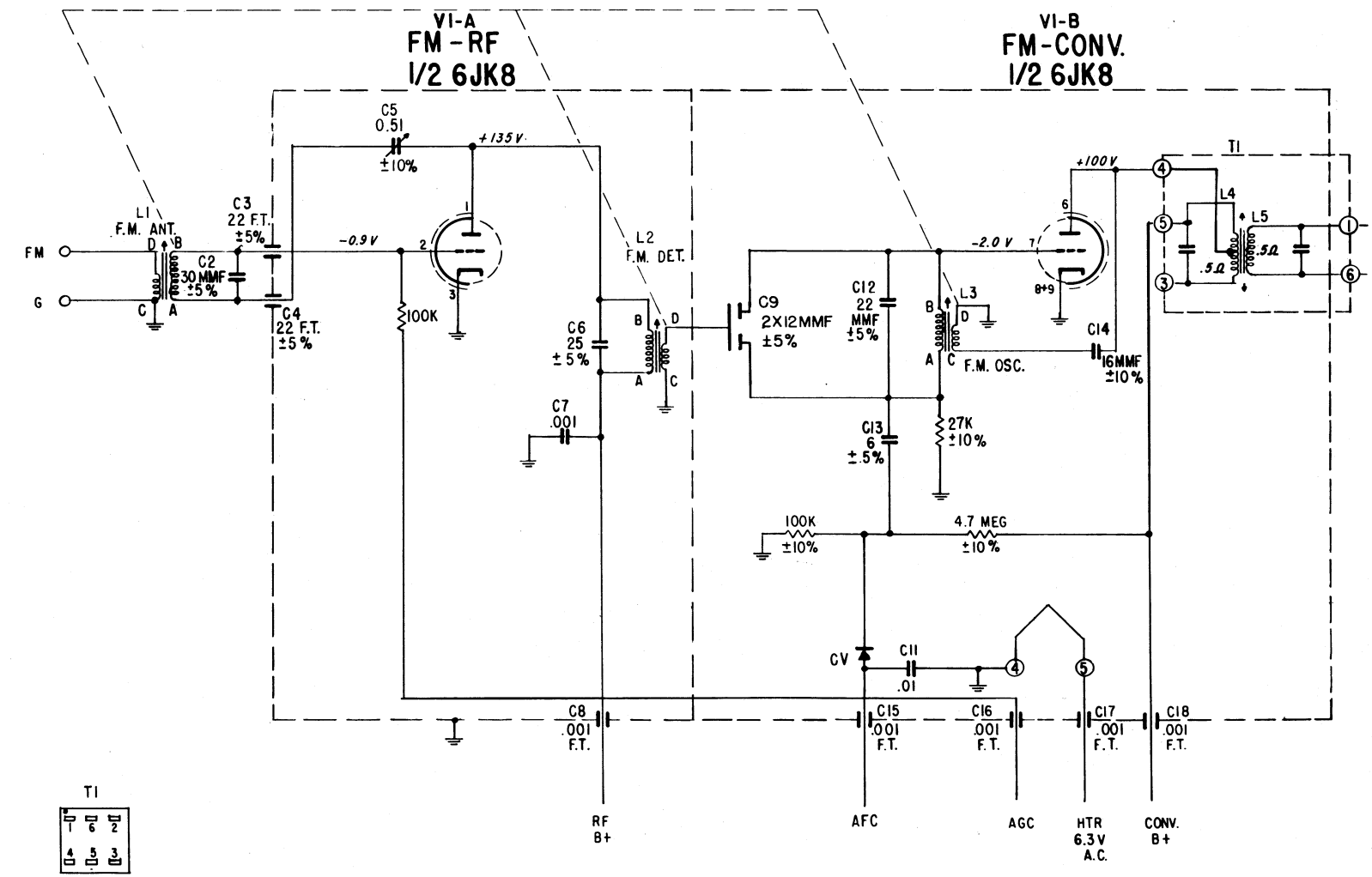

## 12K25Z SCHEMATIC FOR MODELS MK2670, MK2675, MK2685, and 7500-2

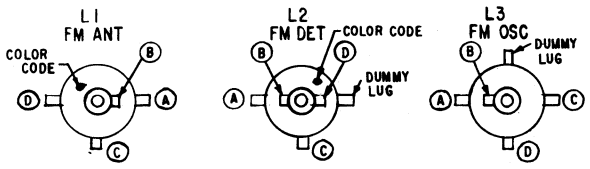



**12K25Z TUBE TRIMMER LAYOUT FOR MODELS MK2670, MK2675, MK2685, and 7500-2**




**7K31Z TUBE LAYOUT FOR MODELS MK2670, MK2675, MK2685, and 7500-2**

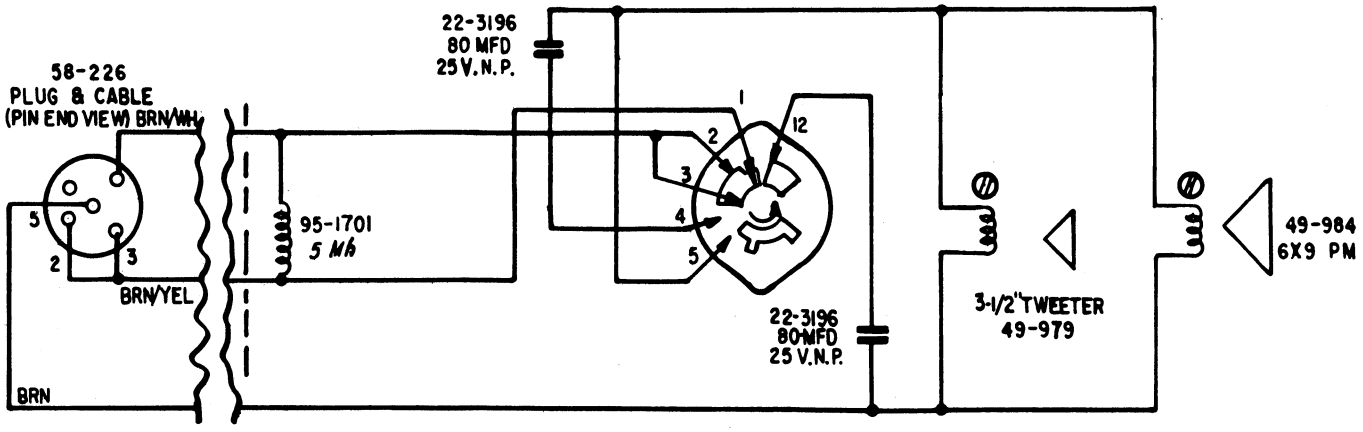



S-53701 – S-55676 SCHEMATIC FOR FM TUNER USED ON CHASSIS 9H20LZ3, 9H20LZ4, 9H21LZ2, 12K25Z and 12K26Z

SHOWN IN FIRST POSITION

1ST — OFF
2ND — RADIAL SPEAKER (ONLY)
3RD — MASTER & RADIAL SPEAKER

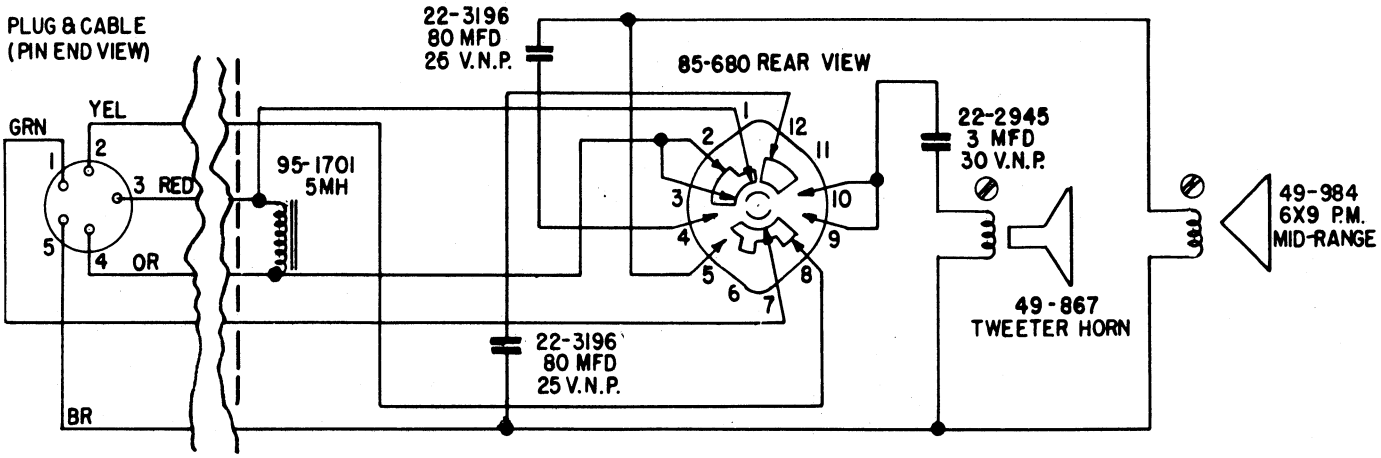



⊘ INDICATES POSITIVE POLARITY OF SPEAKER
(YELLOW OR WHITE)

SCHEMATIC FOR KR102

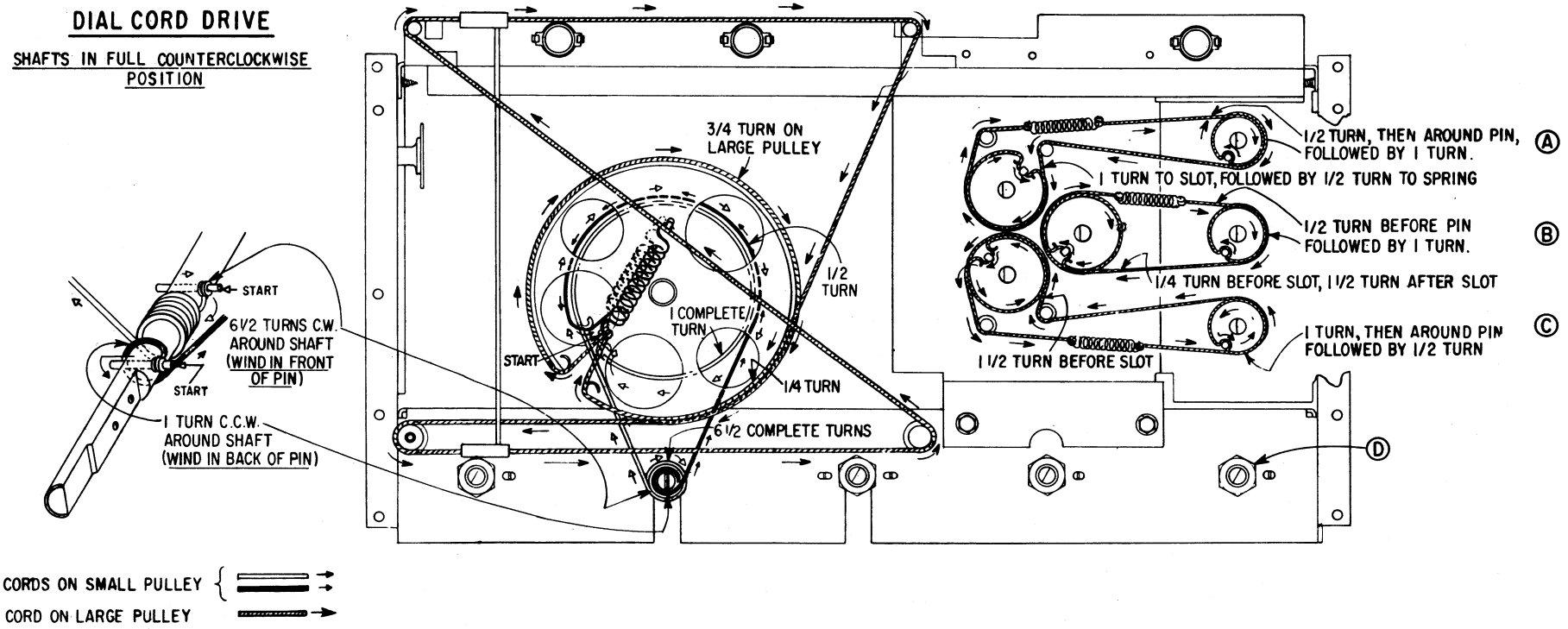
SHOWN IN FIRST POSITION

1ST — OFF
2ND — RADIAL SPEAKER (ONLY)
3RD MASTER & RADIAL SPEAKER



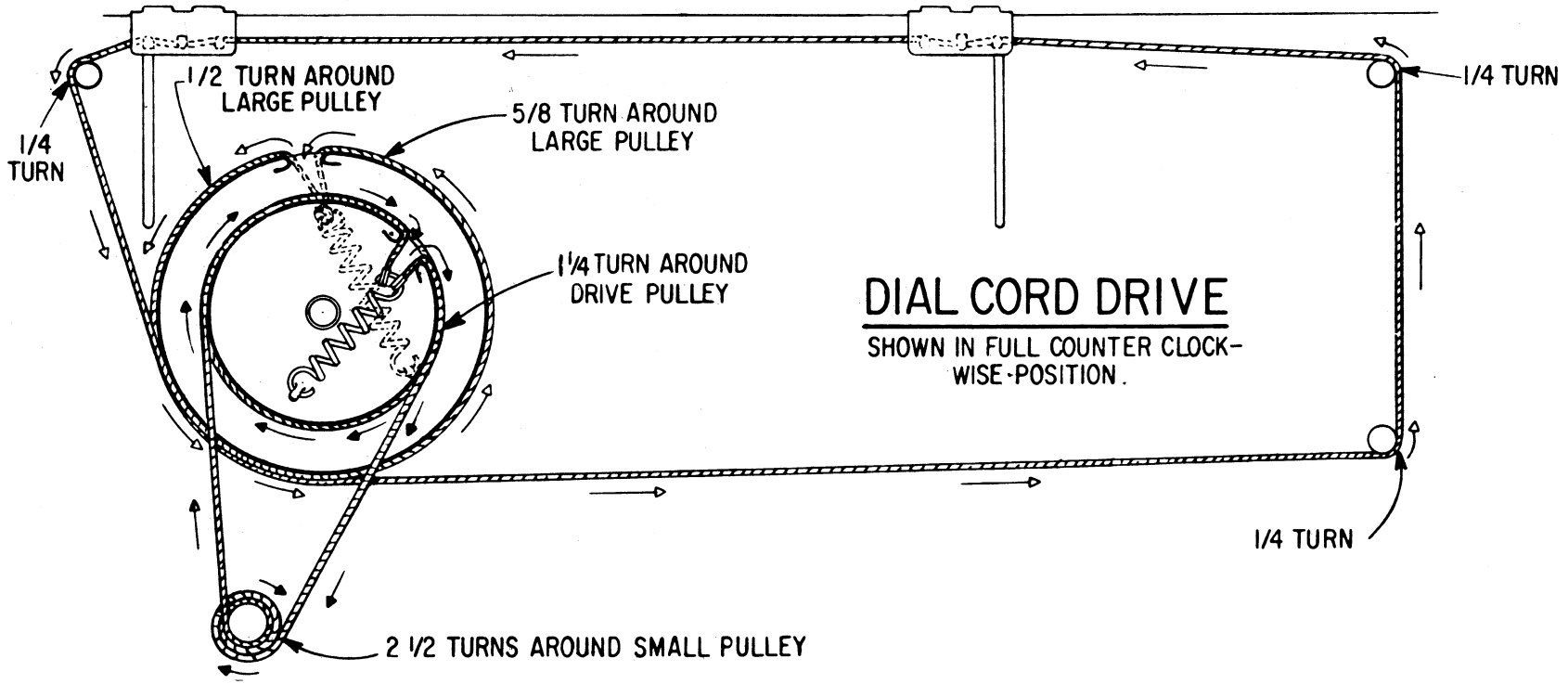

⊘ INDICATES POS. POLARITY OF SPEAKER
(YELLOW OR WHITE)

SCHEMATIC FOR KR105

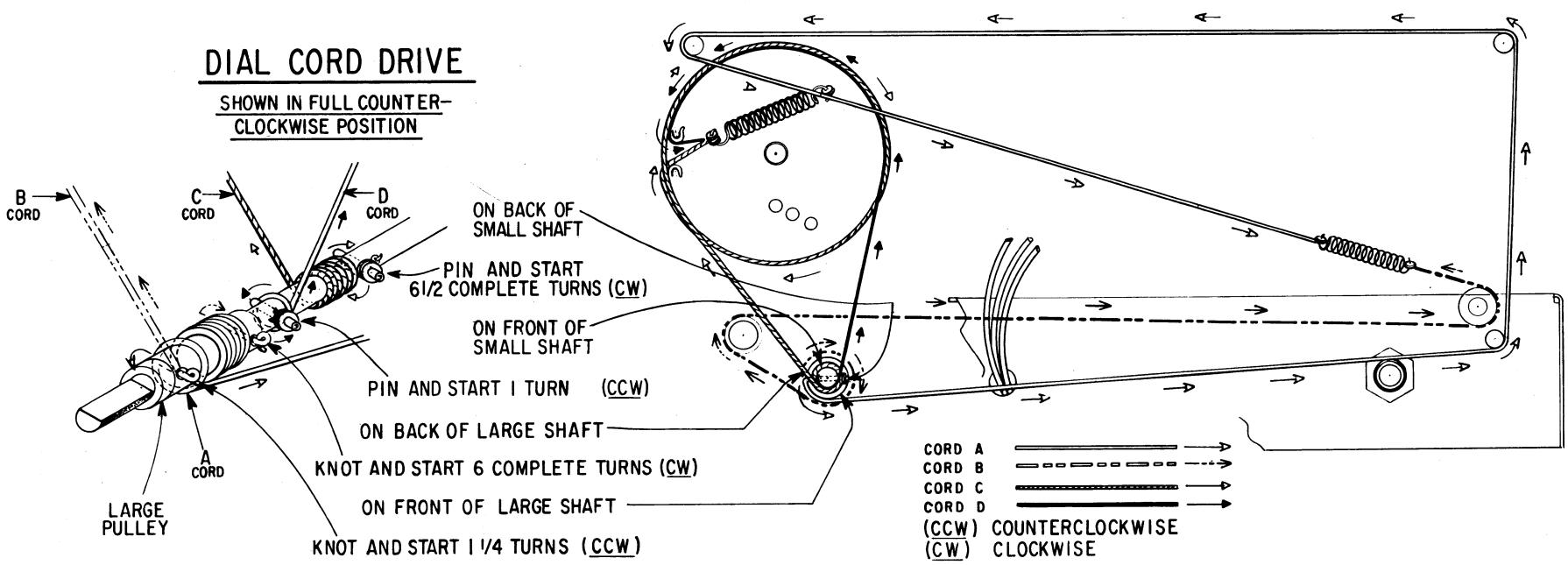


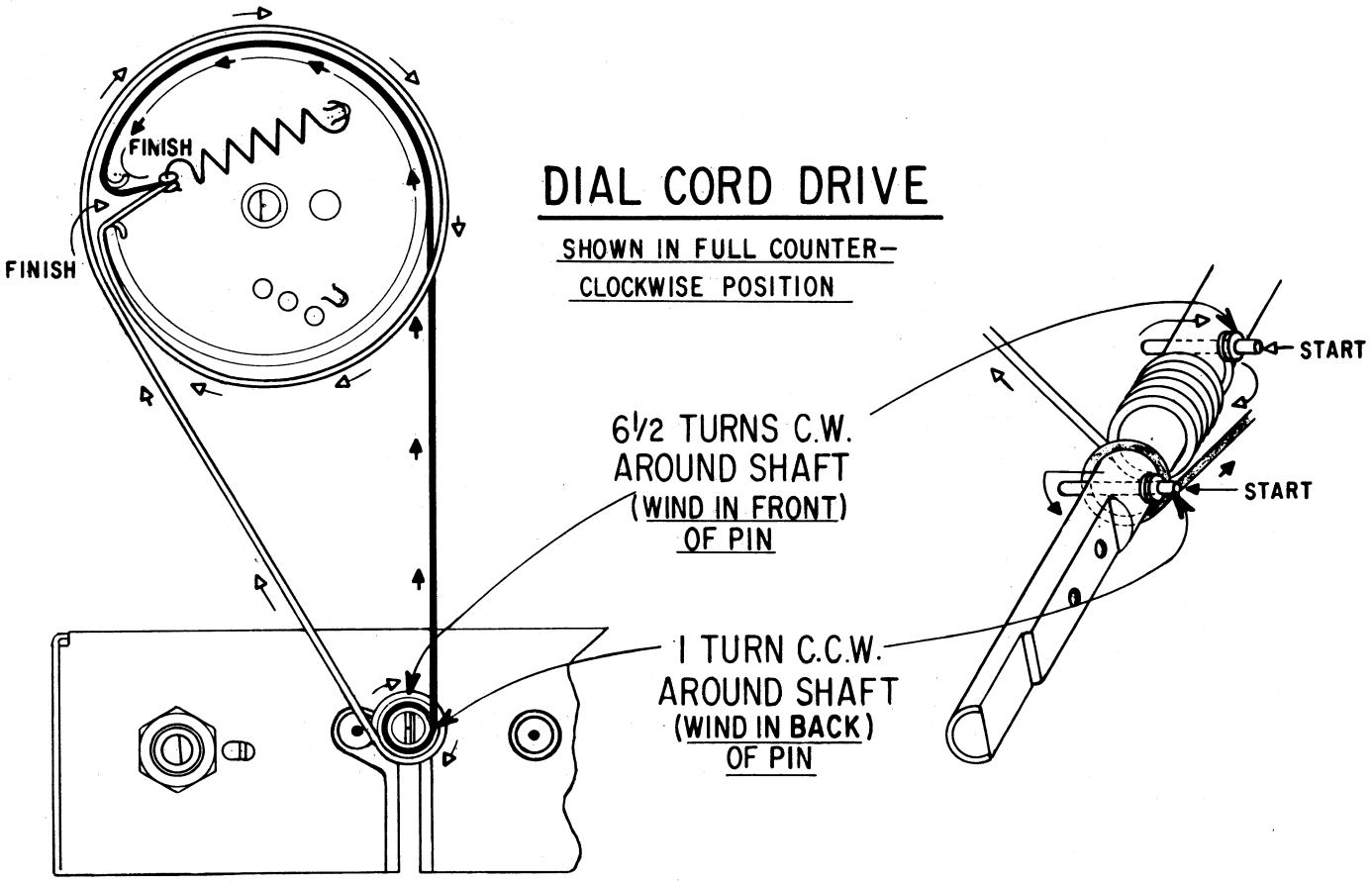

DIAL CORD DRIVE FOR CHASSIS 12K25Z & 12K26Z

## DIAL CORD DRIVE FOR CHASSIS 7F20L & 7K21

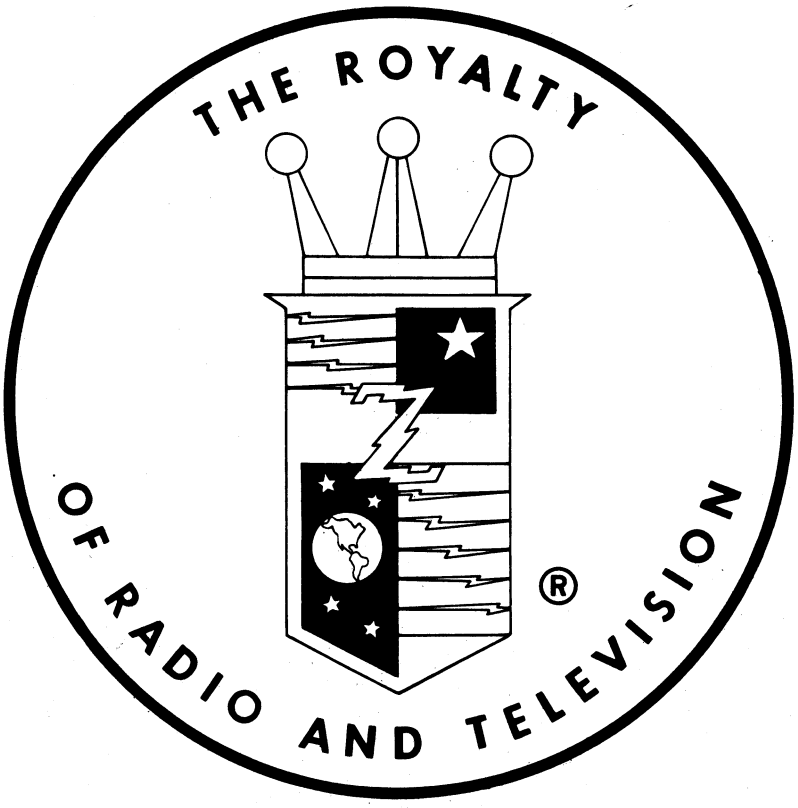



## DIAL CORD DRIVE FOR CHASSIS 9H20LZ3, 9H20LZ4, 9H21LZ2






DIAL CORD DRIVE FOR CHASSIS 12J01 – 12J01Z

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